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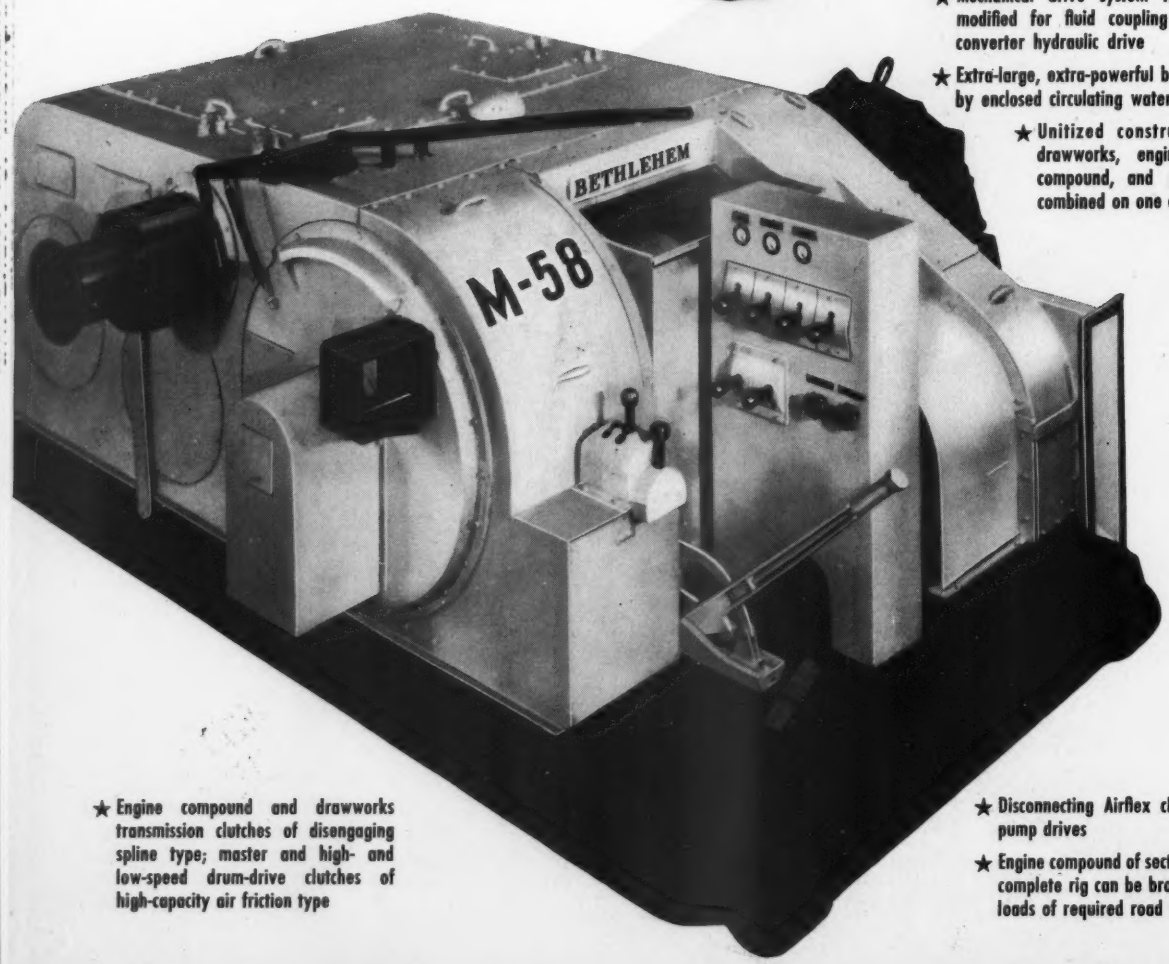

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CALIFORNIA
OIL WORLD

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September 15th, 1951
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Washington Highlights

The Securities Exchange Commission has been asked by the Southern Counties Gas Company of Los Angeles to register $12,000,000 of first mortgage bonds due in 1981. The bonds will be sold publicly by competitive bidding. Part of the net proceeds will be used to pay for capital expenditures, which include a construction program estimated at $11,400,0000 this year. A portion of the money also will be used to reduce indebtedness to the company's parent concern, Pacific Lighting Corporation. Information here indicated that advances by Pacific for building purposes are expected to total $6,900,000 by October 1.

General purpose synthetic rubber price has been hiked by one and one-half cent or approximately six per cent. Its new selling price to industry is 26 cents a pound. The price was raised by the Federal Government, which has a monopoly on synthetic rubber production. About 10 to 11 pounds of rubber is used in making an auto tire. Therefore, the price rise should add about 15 to 16½ cents per tire to the makers cost. The price increase was made known by the Reconstruction Finance Corporation. This agency is selling the synthetic rubber to industry, after the Office of Price Stabilization gave it permission. Increases take effect with September deliveries. The price boost apparently was made necessary because the Government is widening output of general purpose synthetic rubber from 760,000 long tons annually to 860,000 long tons, and to obtain added increase in production higher cost alcohol must be used in making rubber.

Glamorous Irene Dunn, Hollywood film star, has been appointed to the Defense Advisory Committee on Women in the Services.

President Truman's address to the delegates to the Japanese peace conference in San Francisco's War Memorial Opera House marked the first time that an event on the West Coast will be seen simultaneously on the Eastern seaboard and the Middle West. The presidential telecast inaugurated the multi-million dollar transcontinental microwave relay system.

According to the U.S. Census Bureau California's tremendous and rapid growth in population has been due to a mass exodus of people from the Midwest and Eastern section of the country. No early end is foreseen to the shift of population.

A sharp cut in the allocations of metallic lead to tetraethyl manufacturers may oblige the Petroleum Administration for Defense to impose ceilings on octane numbers of motor fuel. This was foreseen when the National Production Authority told tetraethyl makers that their metallic lead quotas for September will be approximately one-half of what they requested. It was also indicated that some curtailment in the tetraethyl stockpiling may become a practical necessity.

American oil producers have been asked by the Petroleum Administration for Defense to conserve as much as possible the use of sucker rods made of nickle-bearing steel. Nickle steel is required in the rods to resist erosion if the oil produced contains large quantities of sulphur. The Federal Agency made known that the production of sucker rods from nickel-bearing steel will be cut. Nickel-bearing rods currently compose about half of all the rods turned out. Due to the nickel shortage, only about 35 per cent of rod production in the future will contain nickel.

The PAD has set a September 30 deadline on oil applications of oil and gas operators seeking priorities aid in securing materials for normal well drilling programs during the first quarter of 1952.

Robert C. Steves, formerly senior economic analyst for Standard Oil of California, has been named assistant director of the PAD program division. He succeeds Robert N. Sears, recently resigned.

Investigation of Torque Converter Drives On Mud Pumps

ABSTRACT:

The construction, application, and fluid flow characteristics of power slush pumps were analyzed as compared to direct-acting steam-driven slush pumps. This comparison was designed to show that direct-acting steam pump operation provides virtually a non-pulsating discharge as compared with the strongly pulsating discharge and pressures of a power pump. The pressure pulsations of a power pump are a function of the rate of change of fluid flow, which in turn is proportional to pump speed. Therefore, it is indicated that a reduction of pressure pulsations can be accomplished by maintaining slower speeds. This is in direct contrast to the present-day practice of operating conventionally driven slush pumps which requires changing of fluid liners and increasing pump speeds with increased well depth. The application of mechanical multiple speed transmissions and hydraulic torque converter drives has made possible slower speed operation while retaining the same size liner at a considerably greater depth. A test was conducted to determine if a reduction in magnitude of pressure pulsations could be accomplished by the application of a torque converter drive. The results of the test show that for a particular situation pressure pulsations of a conventionally driven pump were reduced by 50 per cent. A hypothetical case was then considered in which it was assumed that the converter drive was replaced by a mechanical multiple speed transmission, and it was demonstrated that the pressure pulsations of the conventionally driven pump were reduced by 16 per cent. In consequence of these demonstrations an analysis was developed to determine what increase in rated fluid end pressures of power pumps could reasonably be expected with a reduction of pressure pulsations. For a particular situation it was demonstrated that the rated pressure of a power pump could be increased approximately 10 per cent and 25 per cent, respectively, by the substitution of a mechanical transmission or a torque converter drive for a conventional clutch power takeoff.

By
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Long Beach, California
and
ERNEST G. CHILTON
Shell Development Company,
Emeryville, California

The purpose of the study was to develop a practical analysis of the effect of hydraulic torque converter drives on power slush pump characteristics, and to evaluate them on a basis of pressure pulsations by a comparison with conventional drives and mechanical multiple speed transmissions. Such transmissions would apply successively reduced speed ratios between pump and engine to permit the pump to operate without liner changes as the well depth increases.

For many years the direct-acting steam-driven slush pump was the most popular type for use in the oil fields. However, as improvements were made in the construction of the power slush pump and a better understanding of its operation was developed, it became competitive economically as well as operationally to the steam pump. Unfortunately, operators failed to recognize that the power pump was an almost entirely different piece of equipment which brought with it completely altered fluid flow characteristics. Until these differences have been recognized and fully understood, the operator cannot expect to replace the direct-acting steam pump with a power pump and obtain completely satisfactory performance.

The fluid ends of both types of pumps are alike, generally being of the reciprocating, double-acting type which includes a liquid cylinder, piston and rod, suction and discharge valves, and piping connections for the suction and discharge chambers. However, in type of drive the pumps differ completely. The driving mechanism for the direct-acting steam pump generally consists of a conventional slide-valve engine in which the steam piston is directly connected to the fluid piston by the piston rod. In contrast to this the power pump, by universal usage of the term, has come to mean one which is powered by an external prime mover through a drive system consisting of reduction gears, crankshaft, crosshead, and connecting rod.

The two pumps with their radically different types of drives have correspondingly very different characteristic flow curves. Figure 1 shows the flow characteristics of a direct-acting duplex steam pump, which is actually two pumps interconnected in such a manner that the motion of the piston rod of one operates the steam valve of the other. Theoretically, a direct-acting steam pump maintains steady flow and a constant pressure, and because it is not greatly affected by the influences of the inertia of moving parts, the actual flow curve conforms closely to the theoretical curve.

In contrast, the power pump has certain flow and acceleration characteristics which are modified by the details of design, and which are not changed by the pumping system. Whereas the direct-acting pump adapts itself to a considerable extent to the characteristics of the pumping system, a power pump has no

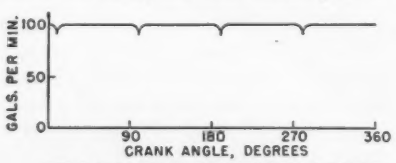

FIG. 1 FLOW CHARACTERISTICS FOR A DOUBLE-ACTING DUPLEX STEAM-DRIVEN PUMP.

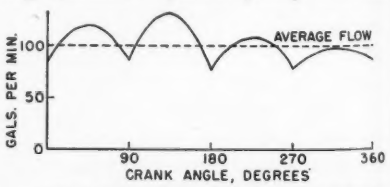

FIG. 2 FLOW CHARACTERISTICS FOR A DOUBLE-ACTING DUPLEX POWER PUMP.

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PETROLEUM CHEMICALS DIVISION NEWS

DU PONT REG. U.S. PAT. OFF.

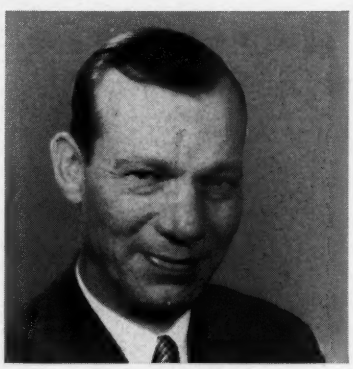
September ★ *One of a Series of Interest to the Petroleum Industry* ★ *1951*

New Houston Office for Gulf Coast District

The Gulf Coast District Office of the Du Pont Petroleum Chemicals Division will soon move into its new Houston headquarters. The new offices are located in the recently completed National Bank of Commerce Building. They are considerably larger than those formerly occupied by the Division's Houston staff and pleasant surroundings have been created by one of Houston's leading decorators.

Superintendent of TEL Manufacturing Area

H. CLIFFORD BAILEY is superintendent of the Tetraethyl Lead Area of the Du Pont Chambers Works at Deepwater, N. J. He joined the Company in 1924 after graduating from M.I.T. and started his Du Pont career as a chemist in the Jackson Laboratory.



H. CLIFFORD BAILEY

In 1925 he was transferred to the Chambers Works. Here he held three jobs successively as a supervisor of the Phenylglycine operation, the Indigo Area and in the Tetraethyl Lead Area. In 1937 he was transferred to the Baton Rouge, La. plant as assistant manager.

After a period in military service he returned to Du Pont and was made technical assistant, Petroleum Chemicals Division, at the Wilmington office. In 1950 he was transferred to the Chambers Works to his present job of superintendent in charge of TEL manufacture.

New Du Pont Color Movie Dramatically Depicts Safe Gasoline Transport by Tank Truck

Film Available to Petroleum Industry for Showings to Municipal Authorities, Safety Groups, Civic Organizations

WHAT do Mr. and Mrs. America think of your gasoline trucks? Judging from reports in publications, and various restrictive regulations, they have some false notions about the safety of these vehicles. Since tank trucks are indispensable, something has to be done to change their minds. But what?

"IS THAT GASOLINE TRUCK SAFE?" asks a finicky lady motorist of our tank truck driver. In the new Du Pont movie, his clear explanation of the facts convinces her that the truck *is* safe.

To help the petroleum industry overcome this prejudice, Du Pont has produced a full-color sound movie on tank truck safety. This film is available to oil companies. It is a Hollywood-produced picture entitled "Pipeline on Wheels." The film is specially designed to give the public the facts about the safety features found in tank trucks built today.

Realistic acting and careful script writing point up the story Forcefully and memorably the new film presents a winning case for the tank truck. Its message is in the form of an entertaining human-interest story. The chief characters, played by Hollywood actors, appear as typical, motoring-conscious Americans.

Throughout the picture, four main points are stressed: (1) The importance of the gasoline tank truck in our modern motorized civilization. (2) The fact that tank trucks are engineered and constructed for great strength and safety. (3) Evidence that tank trucks protect and retain their cargo even when rolled over or exposed to fire. (4) That size is no evil in tank trucks because large loads mean fewer trucks on the highway and, consequently, fewer exposures to traffic hazards.

Besides filling a definite need in public education, the film is ideal for training use. It can be employed effectively to develop job pride among tank truck drivers and maintenance men. Step by step, it shows how the modern tank truck is built to strict specifications for maximum safety. In two spectacular

SPECIAL

In this issue . . .

see back page for progress story on Du Pont's new TEL manufacturing facilities.

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OVER

DU PONT

PETROLEUM CHEMICALS DIVISION
NEWS

DU PONT

CONTINUED

New Movie

demonstrations with a full-size tank trailer loaded with actual gasoline, the movie proves conclusively that a gasoline truck can be rolled over without spilling and that it will not explode—even when subjected to severe fire beneath it.

In preparing the script, Du Pont consulted representatives of the Board of Fire Underwriters, the National Safety Council, the National Fire Protection Association, the API and NPA, as well as many automotive engineers and oil company personnel—over 100 people in all. These men cooperated enthusiastically and many offered sound suggestions which were incorporated in the film. As a result, "Pipeline on Wheels" is as authoritative as it is possible to make it.

THE SAFE CONSTRUCTION of a gasoline tank truck is stressed in this driver training scene from "Pipeline on Wheels."

Prints of the film are available to oil companies for use as they see fit and may be borrowed or purchased through any Du Pont Petroleum Chemicals Division District Office. The showing time is 26 minutes.

"Pipeline on Wheels" provides a feature attraction around which can be planned meetings with civic organizations, public officials, fire or police departments and other interested groups. And it provides a valuable supplement to training programs for tank truck drivers and oil industry personnel in general.

THIS "TAKE-HOME" BOOKLET, describing the movie in detail, is available to oil companies for distribution in connection with showings of "Pipeline on Wheels."

New TEL Manufacturing Facilities Well Under Way at Du Pont

To help meet the growing demand for tetraethyl lead compounds, construction of Du Pont's new manufacturing plant is now well under way at Deepwater, N. J. These facilities, using a new, more efficient manufacturing process, are expected to be in production by January, 1952.

As a result, refiners can look forward to an additional supply of TEL to help them maintain their quality standards and to meet increased gasoline demands. Also, TEL will be more readily available whenever its need for military fuels is urgent.

Construction of the new facilities is being accomplished with a minimum of critical defense materials. The specially designed processing equipment, for example, requires a smaller amount of special steel alloys than the former type.

To keep construction moving at top speed, a crew of nearly 200 men is employed in building the new three-story plant. The building itself is on the Du Pont Chambers Works grounds near the present TEL manufacturing area. Du Pont also plans to maintain full production in the present facilities.

AS THE STEEL WORK of Du Pont's new TEL plant nears completion, the job foreman checks construction details.

LITERATURE AVAILABLE

The Petroleum Chemicals Division of Du Pont has published a wide variety of material of interest to the petroleum industry. This includes technical papers, bulletins, reports and memoranda as well as equipment operation bulletins, safety regulations, tank cleaning data, marketing aids and the like.

Any of this is available on request to your nearest Du Pont Petroleum Chemicals Division District Office. A partial listing of available material is shown below:

Possible Mechanisms By Which Combustion Chamber Deposits Accumulate and Influence Knock . . . . . Serial A-2087a

Tank Talk—a 52-page booklet which outlines safe procedure for cleaning gasoline storage tanks. Written for the man who does the cleaning . . . . . Serial A-1134

Antiknock Antagonists—by H. K. Livingston, Jackson Laboratory

Du Pont Services to the Petroleum Industry . . . . . Serial A-663

MOVIES AVAILABLE

Pipeline on Wheels—A 26-minute, full-color movie on tank truck safety. Suitable for both training and public relations purposes.

What Makes A Gasoline Good—An 18-minute cartoon movie in color. Presents the story of how high quality gasoline is made in easy-to-understand form. Ideal for dealer training meetings.

In addition to the above, Du Pont makes available a special library of films of particular interest to the petroleum industry.

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Petroleum Chemicals

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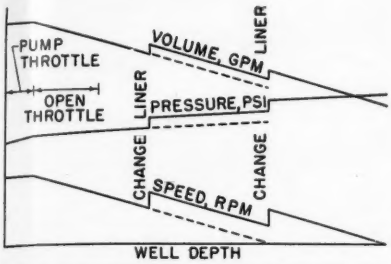


FIG. 3 PERFORMANCE CHARACTERISTICS OF A DIRECT-ACTING STEAM PUMP AS A FUNCTION OF DEPTH.

such flexibility and labors to make the flow in the entire system correspond to its particular flow pattern. Figure 2 shows a typical flow curve for a duplex double-acting power pump. The flow pattern resembles a sine plus cosine curve, but is distorted due to the effect of angularity of the moderate-length connecting rod and the volume of fluid displaced by the piston rods. The amount of this distortion depends upon the ratio of the length of connecting rod to the length of crank, and the difference between head end and crank end piston areas resulting from the piston rod consideration. This distortion effect causes the periodic variations in the combined flow curve, which has the four peaks: Medium, high, medium, and low.

In analyzing the pressure fluctuations inherent in the power pump it is usually found that the rate of change rather than the amount of change of fluid flow is responsible for the pulsations. Since the maximum rate of change of fluid flow is proportional to the product of the pump speed and the greatest slope of the combined flow curve, variations of either will affect the pressure pulsations accordingly. This is accomplished in the triplex pump by smoothing out and reducing the maximum slope of the combined flow curve with an additional cylinder.

Now comes an important concept which is seldom recognized by the operators of power slush pumps. For two pumps having different size liners and operating at the same output, the one with the smaller size liner and higher speed will have considerably increased pressure pulsations. It has the same total flow variations as the slower pump with the larger liners, but with the difference that it takes place more frequently. Thus the rate of change of fluid flow is greater for the smaller higher speed pump and consequently the fluctuations in pressure will be greater.

Power pumps as they are operated today usually follow much the same pattern of application as the direct-acting steam pumps. The similarity of operation between the two types of pumps is illustrated in Figures 3 and 4. As the well depth increases with a corresponding increase in pressure each pump is forced to slow down until at some depth the liner must be changed to a smaller size or the pump will stall. With each change in liner size the pump again speeds up, and, in the case of the power pump, each increase in speed is accompanied by a corresponding increase in magnitude of pressure pulsations. The application of mechanical transmissions to power slush pumps has offered the advantage of operating at slower speeds while retaining the same size liner without stalling the pump. Another more recent development has been the application of hydraulic torque converters, which, for many years, were considered unadaptable to slush pumps. However, a better understanding of converter application and mechanical improvements in the power slush pump have eliminated many of the earlier objections. The converter on a slush pump offers several valuable features, probably the most familiar one being that it permits the engine to operate at its most efficient speed while the pump automatically adjusts itself to maximum discharge volume, thus obtaining relatively constant hydraulic horsepower at its discharge.

Recently, a test was conducted to determine if a torque converter drive

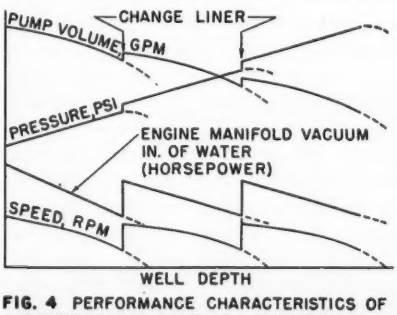


FIG. 4 PERFORMANCE CHARACTERISTICS OF A POWER SLUSH PUMP AS A FUNCTION OF DEPTH.

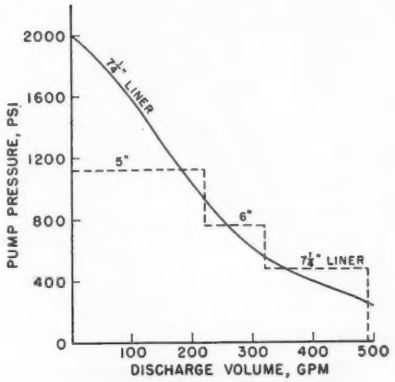


FIG. 5 PERFORMANCE CURVES FOR A 7¼" X 12" POWER SLUSH PUMP WITH A TORQUE CONVERTER DRIVE AND ONE SIZE LINER, AS COMPARED TO THE SAME PUMP WITH A CONVENTIONAL DRIVE AND VARIOUS SIZE LINERS.

would reduce power pump pressure pulsations by a comparison with a conventionally driven pump equipped with a necessarily smaller size liner. The test was conducted at a rig drilling 6¼ in. hole with 3½ in. O.D. internal-flush drill tubing at a depth of 6,063 ft. Seven-inch, 26-lb.-per-ft. casing had been set at a depth of 5,725 ft. The No. 1 pump, which had a 7¼-in. liner and 16-in. stroke, was rated at 300 hydraulic hp, and was driven through a single-stage torque converter and chain drive by a 12-cylinder twin diesel engine rated at 290 combined bhp. The No. 2 pump, which had a 6-in. liner and 14-in. stroke, was rated at 280 hydraulic hp, and was driven through a clutch power takeoff and V-belts by two 6-cylinder gas engines rated at 180 bhp each. Unfortunately, the two pumps were not alike either in length of stroke or prime mover. However, in a practical sense the conditions of the test were quite representative of an actual drilling situation. The necessity of using 6-in. liners in the No. 2 pump was probably indicative of the size liner that would have been required by the No. 1 pump had it been conventionally driven at that depth. This situation is illustrated in Figure 5, which compares the performance curve of a converter driven pump with a single size liner to that of the same pump conventionally driven with several size liners.

Each of the two pumps was tested individually by replacing the mechanical pressure gauge with a Statham pressure pickup and operating the pumps at pressures ranging from

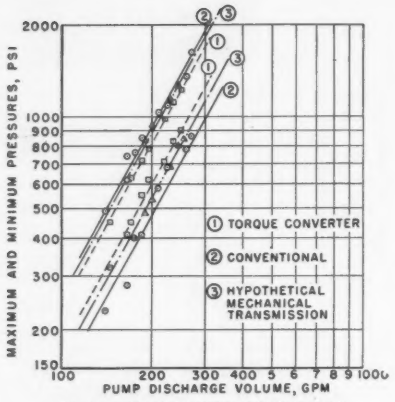


FIG. 6 CURVES SHOWING MAXIMUM AND MINIMUM PRESSURES FOR A SLUSH PUMP USING A CONVENTIONAL DRIVE, AND ONE USING A TORQUE CONVERTER AND A HYPOTHETICAL MECHANICAL TRANSMISSION.

300 to 1100 psi, inclusive. The drilling fluid consisted of 74 lbs. per cu. ft. water base emulsion mud, which was circulated with the bit rotating off bottom. Results of the test are shown in Figure 6 in which the maximum and minimum pressures recorded for one crank revolution are plotted for both pumps against calculated actual discharge volumes.

From Figure 6 it is apparent that the pressure pulsations of the converter driven pump were considerably reduced, because both the maximum and minimum pressures for this pump, represented by the lines marked (1) fall within corresponding pressures for the conventionally driven pump, represented by the lines marked (2). The amount of this reduction, represented by the vertical distance between the variation lines marked (1) and (2) in Figure 7, is approximately 50 per cent. However, had the No. 2 pump been operating with a 16-in. instead of a 14-in. stroke, the slower speed probably would have reduced this figure somewhat. Nevertheless, the reduction of pressure pulsations was appreciable and led to an attempt to predict what the reduction in variation would have been if the No. 1 pump had been equipped with a mechanical transmission. In this connection, a theoretical analysis was developed by means of which maximum and minimum pressures, represented by the lines marked (3) in Figure 6, were calculated for the No. 1 pump assuming it was equipped with a mechanical transmission instead of a converter. As anticipated, these curves fell inside those for the conventional drive, and, more importantly, outside the curves for the converter drive. Figure 7 shows that the pressure variations of the conventionally driven pump could have been reduced by 16 per cent with the application of a mechanical transmission, as opposed to the previously demonstrated 50 per cent reduction obtained by the converter drive.

The reduction of the pressure pulsations corresponds to the general alteration of the pressure curve when a converter drive is applied to a slush pump. The pump is no longer required to conform without variation to the constant speed characteristics of the prime mover, but may, with the elimination of the positive mechanical drive develop relatively independent operating characteristics of its own. What happens is that the individual operational cycle of the crank is changed from a constant to a varying angular velocity. This is illustrated to good

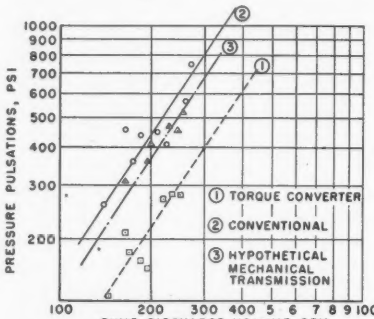


FIG. 7 CURVES SHOWING PRESSURE PULSATIONS FOR A SLUSH PUMP USING A CONVENTIONAL DRIVE, A CONVERTER AND HYPOTHETICAL TRANSMISSION.

advantage in Figure 8 in which it is evident by comparison of the manner in which the pressure curve of the converter driven pump is altered. Maximum pressures are lowered and minimum pressures are raised, while the duration of comparable parts of the cycle is not constant. In general, the pressure curve for the conventionally driven pump is characterized by peaked maximum pressures and a sharply fluctuated rise and fall of pressures between peaks, while that for the converter driven pump is a much smoother curve characterized instead by rounded maximum pressures and a gentle rise and fall of pressures between them.

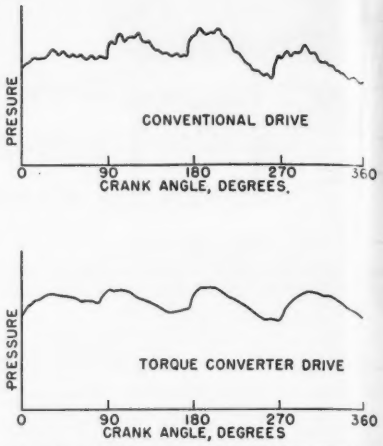


FIG. 8 A COMPARISON OF MEASURED PRESSURE TRACES OF TWO POWER SLUSH PUMPS, ONE USING A CONVENTIONAL DRIVE AND THE OTHER A TORQUE CONVERTER.

If one considers the effects of torque converter drives on stresses in parts of the engine and drive mechanism, it will be noted that appreciable mechanical improvements are obtained, accruing from at least two different causes:

(1) Reductions in peak pressures obviously reduce peak stresses in the parts.

(2) Smoothing of the pressure curves reduces shock loads and high momentary accelerations, and will appreciably improve fatigue life of parts.

The reduction of pressure pulsations will permit raising of the rated pressures on the fluid end of the pump. This can be illustrated further as follows: Assume that a certain part in the pump drive such as a gear is designed on fatigue limit and subjected to stresses which are directly proportional to the pressure pulsations in the pump. Then

$$S_{max} = k\ P_{max}$$

and

$$S_{min} = k\ P_{min}$$

where S_{max} and S_{min} are the maximum and minimum stresses in the part respectively; P_{max} and P_{min} are the maximum and minimum pressures; and k is a constant. Then

$S_r = (S_{max} - S_{min})/2$ = amplitude of fluctuating stresses

and

$S_m = (S_{max} + S_{min})/2$ = mean stress

then

$$\frac{S_r}{S_m} = \frac{1 - S_{min}/S_{max}}{1 + S_{min}/S_{max}} = \frac{1 - P_{min}/P_{max}}{1 + P_{min}/P_{max}}$$

One can now, according to Timo-

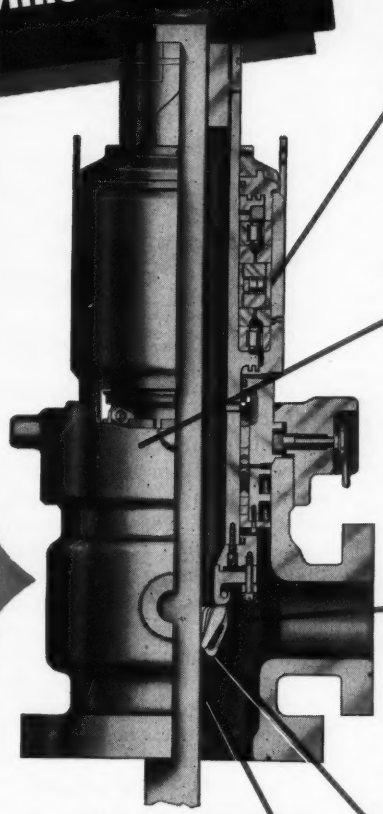
THE MOST EFFICIENT, MOST VERSATILE UNIT for continuous pressure control while drilling!

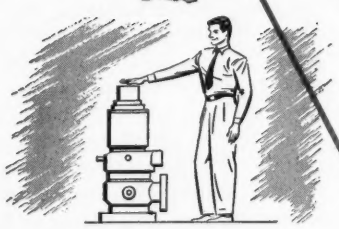
The Shaffer Combination Rotating Blowout Preventer and Stripper

... is unequalled for all-around pressure control because it combines—in *one* compact unit—the many features needed for safe, simplified drilling under pressure. What's more, no special drill pipe or kellys are required—*it works equally well with all standard drill-string hook-ups!*

The Shaffer Combination Rotating Blowout Preventer and Stripper is *completely automatic* in its action. Pressure emergencies just can't happen too fast, for this unit is *always* sealed off around the drill string while pipe is in the hole ... *always* ready to control pressure surges as soon as they occur—without manual attention.

Check over the unique features outlined at right. Then, before you purchase *any* pressure control equipment, get the *complete* story on the Shaffer Combination Rotating Blowout Preventer and Stripper. It's the most *efficient*, most *positive*, most *versatile* pressure control unit available today!





AMAZING COMPACTNESS

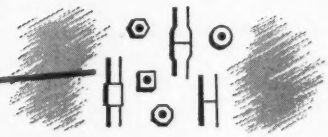
Space-saving compactness of the Shaffer Combination Rotating Blowout Preventer and Stripper reduces both vertical and horizontal space requirements, and permits installation even under the most difficult space limitations. Even the flow connections are built directly into the body, thus simplifying hook-ups and eliminating need for spools or other equipment for overflow connections!

UNUSUALLY LONG LIFE

The Stripper Assembly rotates freely *with* the kelly—not one inside the other—thus, there is virtually no wear on the rubber. This reduces maintenance, assures a pressure-tight seal and maximum safety. In addition, the bearing assembly upon which the unit rotates has separate thrust and radial bearings to withstand any combination of loads due to high pressures and high-speed drilling. Bearings are lifetime prepacked with heat-resisting lubricant.

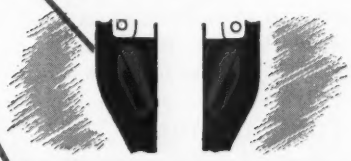
QUICK RELEASE

Bits and reamers can be passed through the unit with maximum ease, safety and simplicity. Simply pull a spring latch, rotate the bonnet 1/6 turn and the entire internal mechanism as a unit can be withdrawn to permit removal of the bit or reamer. When going back into the hole, simply reverse the operation. It's as simple as that!



SEALS ANY SHAPE, VARYING DIAMETERS

The Stripper Rubber expands and contracts *automatically* to fit the various shapes and diameters in the drill string (excepting only such abnormally large diameters as the bit and reamer). It seals off around any shape—square, hexagonal and octagonal kellys ... as well as the varying diameters of couplings, tool joints, subs, drill collars and pipe, whether upset, flush or coupled. *No manual adjustment is necessary!*



STEEL PROTECTED STRIPPER RUBBER

A patented expandable steel barrier of flexible steel latches prevents the Stripper Rubber from extruding either by high pressure or by pulling large diameters through it. Yet full flexure of the rubber is assured at all times!

SEALS CONTINUOUSLY

A pressure-tight seal is maintained at *all* times without need for applying mechanical or hydraulic pressure of any kind from the outside ... and the seal is *self-adjusting* to the varying shapes and sizes in the drill string. The operator can *drill* under pressure, and can also *strip* pipe in and out of the well under pressure—*all without adjustments or changes in the unit!*

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shenko and MacCullough, plot a curve for computing a new maximum allowable fluid end pressure as in Figure 9. Operation under the line AB. assures against the possibility of exceeding safe pump operation and shows that with a decrease in maximum pump speed and a corresponding decrease in pressure pulsations the fluid end rated pressure may be increased.

The values chosen for the ratio of $P_{min}/_{max}$ are those shown in Figure 6 and the corresponding ratios of S_r/S_m were calculated from them. If the type of steel for the gear is known, then curves similar to the one in Figure 9 can be plotted and the amount calculated by which fluid end pressures may be increased and yet maintain the same degree of safe pump operation. Values for the ratios of P_{min}/P_{max} were 0.515, 0.615, and 0.738, respectively, for the conventional, transmission, and converter drives. The corresponding ratios of S_r/S_m were, therefore, 0.320, 0.239, and 0.151 which resulted in values for S_m, the maximum safe average stress of the gear of 31.2, 34.4, and 38.9 per cent of the yield strength. Therefore, the rated pressure of the conventionally driven No. 2 pump which was approximately 1150 psi using a 6-in. liner could have been increased by the ratios of 34.4/31.2 and 38.9/31.2. This would have resulted in new rated pressures of 1270 psi and 1440 psi, respectively, for this pump had it been operating with larger size liners and at slower speeds made possible through the application of a mechanical transmission or a torque converter.

CONCLUSIONS:

A direct-acting steam pump adapts itself to the characteristics of the pumping system, whereas a conventionally driven power pump has no such flexibility and labors to make the flow in the entire pumping system correspond to its particular flow pattern. However, with a torque converter drive, a slush pump acquires a new degree of flexibility and by the elimination of the positive mechanical drive it is no longer required to conform rigidly to the constant speed characteristics of the prime mover. Instead, new and relatively independent characteristics are developed resulting in an entirely altered pressure curve.

In a power pump pressure pulsations are a function of the rate of change of fluid flow, which, in turn, is proportional to pump speed. Therefore, reducing the speed of a power pump will correspondingly reduce pressure pulsations.

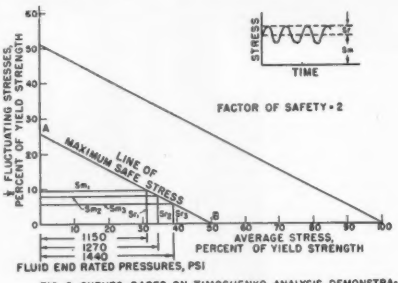

FIG. 9 CURVES BASED ON TIMOSHENKO ANALYSIS DEMONSTRATING THE CALCULATION OF NEW RATED PRESSURES FOR A SLUSH PUMP.

A torque converter was found to reduce pressure pulsations by approximately 50 per cent when compared to a conventionally driven pump, which, for the particular situation considered, was operating at higher speeds as a result of the necessary reduction in liner size. A theoretical analysis, in which it was assumed that the converter was replaced by a mechanical transmission, showed that the pressure pulsations of the conventionally driven pump would have been reduced by 16 per cent.

The reduction of pressure pulsations will permit raising the rated pressures of the fluid end of the pump. For a particular situation it was demonstrated that the rated pressure of a conventionally driven pump could be increased approximately 25 per cent by the application of a torque converter, and by approximately ten per cent by the application of a mechanical transmission. Such increases illustrate the advantages to be gained by maintaining larger size liners and operating slush pumps at slower speeds.

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Presented May, 1951 at A.P.I. Spring Meeting, Los Angeles.

Walnut Field Well Completed

DeWitt Langford, a relative newcomer to California development and formerly with the Houston Oil Company at Houston, Tex., has completed an interesting well in the Walnut field near Puente. Named Vanderhoof No. 2, the well was drilled to a total depth of 2509 ft., before plugging back for completion at 1454 ft. The well is located on Sec. 3-2s-10w and at last reports was pumping at the rate of 135 barrels of 18.2 gravity oil a day. Indications are that the new producer is about 120 ft. higher on structure than the H. A. Bardeen Lautenbach No. 1, which was finaled in May, 1948, for 25 barrels daily on the pump. Fay Wright conducted the engineering work on Vanderhoof No. 2.

Del Valle Try Spuds

Southern California Petroleum Corporation continuing its successful development program has spudded its Kinler No. 16-1 on Sec. 16-4n-17w in the Del Valle area. On Sec. 20, same township and range, SCP has location staked for N.L. & F. No. 2. In the Del Valle field, Standard Oil's Sepulveda No. 20 is in on Sec. 17-4n-17w for an initial flow of 2,870,000 cubic ft. of gas daily rom 3724 ft.

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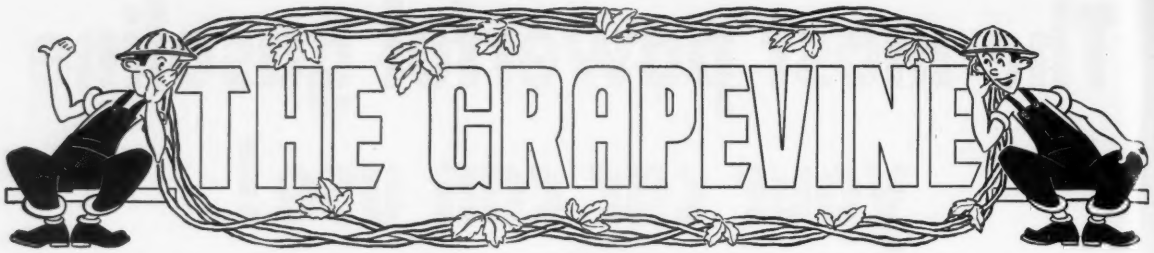

Word comes out of the poetic village of Whittier that Welch's restaurant out thataway was the scene of a rather unusual donnybrook one evening towards the end of August when two dozen oil men of note gathered there to pay tribute to J. Henry Menke on the eve of his retirement. Henry, as he is familiarly known to an expansive circle of friends, is a rare character with a substantial, well-upholstered frame, a boundless energy, a generous share of good looks, and an enviable sense of humor. He was graduated from Stanford in geology and mining but has never permitted these qualifications to interfere with a thorough enjoyment of life. In fact, his sheepskin was always regarded by him as, partly at least, a passport to a good time.

For six years after graduation he engaged in a miscellany of useful endeavors, including a hitch in consulting work with that master consultant, Ralph Arnold, and some work on a concession in Lower California from which he was driven by bandits during the Madero revolution. For a time he was geologist for the Kern Trading & Oil Company which by a somewhat devious route was eventually acquired by Standard of California. It is popularly believed that Standard wasn't really so keen about the rest of the assets but was determined to acquire Henry Menke at any cost. They did, and for several interesting years thereafter their new acquisition resided at that illustrious hostelry, Camp 11C, at Taft, frequented the Petroleum Club, and in general whipped the social and civic atmosphere of the Valley metropolis into a stiff emulsion.

He was transferred to San Francisco in 1925 as chief petroleum engineer of the Pacific Oil Company and was again acquired by Standard in 1926, making him one of the few oil men to ever survive two mergers and still retain a measure of equilibrium. While in Baghdad by the Bay, he took an extension course in night spot patronization and passed with honors, at one time being better known on Fisherman's Wharf than Joe Dimaggio. He returned to Camp 11C as district petroleum engineer in 1926, was transferred to Los Angeles in 1929, and was appointed assistant chief petroleum engineer in 1932 with headquarters in San Francisco. Henry is still up there as this is being written but before it appears in print will have retired and thenceforth will in all probability be busier than he has

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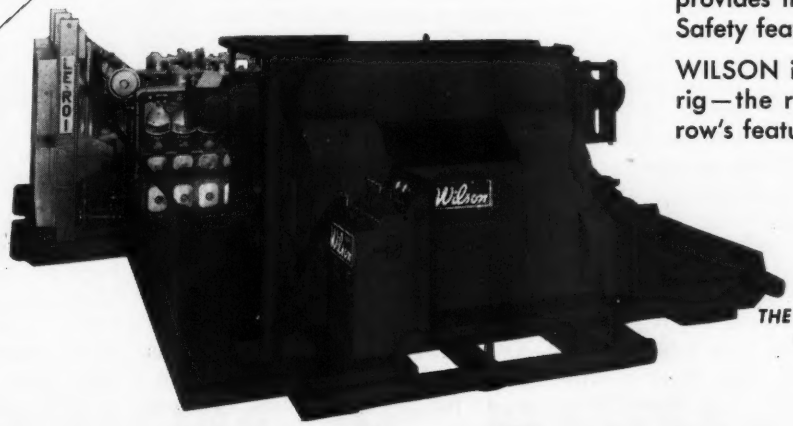

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ever been in his life before. Anyway, we wish him and all his kith and kin a heap of enjoyable living as he sheds the old institutional yoke and starts "doin a what comes natcherlee."

Discussing now the details of the whingding at which Henry was dined and wined to the twelve signs of the zodiac, Mal Morris, Standard's southern district superintendent, was toastmaster for the evening and from what we hear it is mighty seldom that toast is so completely mastered. Mal had the air above the banquet table saturated with encomiums, wisecracks, and well wishes, and the guests were diverted no end. They, too, added their personal blossoms to the bouquet that was finally tendered Henry and everybody had a grand time in the process. Among the distinguished petrolic people who graced the festive board were C. J. "Kobe" Coberly, prexy of the Kobe organization, well known yachtsman, and an engineer with an unusual bent for invention; Bill Corey, the Lacy Oil Tool chap who, if he didn't found the API, has certainly helped to keep it founded for the past 25 years more or less; and Bill Eggleston, Union Oil Company's leading thespian, a domino player who sure knows how to handle a flock of fives.

Others who made notable contribution to the outstanding occasion were Harry Godde, Signal Oil & Gas Company's chief geologist, a near professional golfer and a mighty astute pegger in a cribbage fracas—the highest possible count in a single cribbage hand is 29 but we understand that Harry often makes as high as 32; Doc Hayes, the front half of Hayes & Sprague, the Ben Hogan of the contract drilling set, a master of oratorical clarity, and an entertaining frequenter of the 19th hole; Frank O'Neill, the M. O. Johnston engineer, who worked for Henry Menke in other days and still thinks it was a very much worthwhile experience; Joe Siegel, the Kobe ambassador of good will, membership chairman of the Petroleum Production Pioneers and a buddy of every room clerk and *maitre de* between Seattle and San Diego; Bill Sievers of the W. E. Sievers Corporation, trout fisherman extraordinary and mud doctor ditto ditto. Then there was Paul Terry, vice president and general manager

NOMAD PREXY AND WORLD TRAVELER

Jerry Engstrand, vice president of Grant Oil Tool Company and MacClatchie Manufacturing Company, was born in Illinois, received his early schooling in Gottenber, Sweden, studied medicine in Colorado, played professional football in Honolulu, and then stayed for several years on the USC campus boning up on engineering. He was sent by the Olympics Committee to invite the Latin-American countries to participate in the games at London, England, in 1948, and has since revisited most of the countries he called upon at that time. Jerry was at one time engaged in a joint venture with William Randolph Hearst, H. F. Alexander, Logan & Bryan, Stanley Dollar, Marion Davies, and other notables. Later he was the owner of a number of rotary mud pits of which he subsequently disposed. He is at the present time president of the Los Angeles chapter Nomads, a director of the Jonathan Club, a member of that noted equestrian group, the Visitadores, and a member also of the arrangements committee of Petroleum Production Pioneers. He is a rabid sports fan and numbers among intimate friends a raft of coaches, trainers, professional performers, and sports promoters. He is a clean-cut, pleasant sort of a chap who seems to have a special entree to every place of importance and he is welcomed whenever and wherever he appears. Indeed, a host of people in all parts of the world are pleased to call him friend.

---

of Capital Company's oil division, a mighty hunter, the crack of whose rifle has summarily ended the career of many an ambitious mallard. And last but certainly not least was Peg Whealton, the consulting engineer, by all means one of the outstanding tile tossers of the western hemisphere. As a matter of fact, his nickname was given him because of his uncanny ability to peg without looking up from his lunch.

It is perhaps hardly fair to dismiss this important conventicle without some reference to the other chevron wearers who were in attendance. There were for example, Warren Johnson, the tall, grey haired, classic featured, southern division manager of production, who is an imposing figure in any gathering; Frank Colohan, the studious engineer who in his spare moments accumulates most interesting data on the flora and fauna of the United States, and having recently had a gander at flora in a strapless gown or a gownless strap or something, we don't blame Frank a bit; George Collins, the popular drilling representative at Buenaventura whose hobby is finding pipe; Bill Collins, cost control chap—he whams a golf ball with unprecedented ferocity and is always surprised no end to find it still there.

Also present were George Klingaman, the drafting whiz, one of the few married men who can make his own plans; Archie Lang, the squire of Poso Creek who taught Izaak Walton, the "compleat angler," all he ever knew; George Lang, a mechanic of the same ilk who handles a nasty gaff and is mortally feared by every sensible salmon in the northwest; George Laurent, an engineer and devoted family man who really enjoys spending his spare time around home—home being described as that small seldom used building that stands on the same lot as the garage; Ken McNamara, district petroleum engineer, another home lover who is at present busy titivating his new place in Whittier. Ken says the nice thing about home is that it gives you somewhere to wish you were when you are away; and winding up this group was Bob Russell, the production engineer who finds diversion in horticulture and believes it can at times be the most fascinating business extant—once, indeed, Bob found a bachelor's button in a black-eyed Susan's bed. What do you know about that?

Not long ago we dropped into the Petroleum Club for lunch and there, large as life, was Art Quackenboss, a Union Oil Company ex-mariner with whom in our younger days we were wont to engage in an occasional penny ante binge, much to the detriment of Art's dining room table and his supply of the light, fine, and mel-

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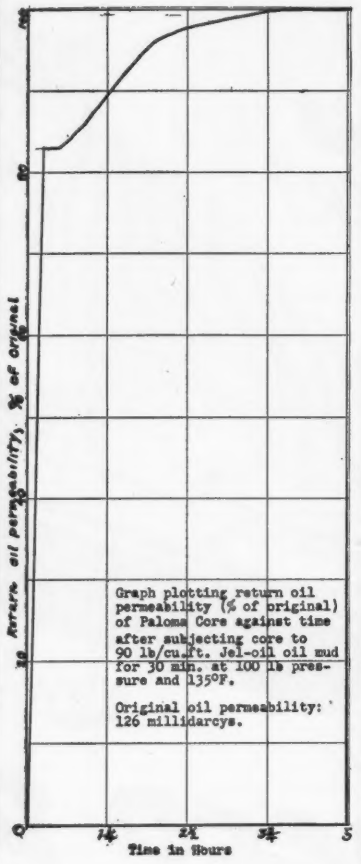
low brew. In between poker games we played on rival teams in the same bowling league and as nearly as we can remember now, Art threw a fastie that always sent the pin boys scurrying into the rafters. He rarely needed to shoot a spare because any pins that weren't sent reeling by the ball were later rocked off balance by the teetering of the building. That's how hard he struck the back wall.

Anyway, to get back to the business of the moment, Art was accompanied on this occasion by two distinguished individuals—E. L. Hyatt, assistant to Union Oil Company vice president, R. D. "Frick" Gibbs; and Bill Saul, an emissary from Shell Oil Company, whom we hadn't glimpsed in many a day. It was rather odd that we should see Bill Saul just then because we always think of him on his Los Angeles visits as either squiring or being squired by Bill "Baldy" Ackerman of Tide Water Associated. They seemed in these days to be as inseparable as Wheeler and Woolsey, Kolb and Dill, and Laurel and Hardy. The coincidence lies in the fact that on the very next day we read of the death of Bill Ackerman. We hadn't seen him for years and it was certainly a shock to catch up with him in the obituary column. That, however, is the way of life and there is little we can do about it except to express our keen regret, tender our sympathy to the family and friends, and salute another good guy who has gone over the bar.

From Bakerstown come a scad of effusions, glowing visibly over a drilling contractors barbecue that was staged in Kern County Park a short time ago, and everybody seems to be of the same opinion that the success of the whole caboodle must be credited to Pug York. Pug is a modest little chap who works harder than a beaver and then literally wriggles with embarrassment if you try to compliment him. Just the same, he is a doer of consequence. He has been in the drilling contract business since the beginning of time and he gets around more than a Fuller brush salesman. From the moment that beef steers were invented he started organizing barbecues and he can always be depended upon to do a bang up job. So we here join the host of Pug's admirers and proffer our thanks for a notable contribution to the cause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of good fellowship—and what could be more worthy?

Who should we see fluttering around the local petrolic circuit recently but that husky lad from Lufkin, Texas, Ed Trout, vice president of Lufkin Foundry & Machine Company, looking as sharp as the proverbial tack. Ed is here partly on business and partly to escape the 107 degree weather with which his particular part of the Lone Star state has lately been plagued no end. He will loll at the beach for an indeterminate time devoting himself meanwhile to piscatorial pleasures and the improvement of his golf game. This latter is an urgent necessity. Last time we saw him was almost a year ago when with redoubtable disciple of swat, Dutch Zwerneman, he beat his way around the Annandale Golf course through bushes, brooks, and bunkers until at the ninth hole they were so utterly exhausted they dragged themselves wearily upstairs to the locker room, looking for all the world like a pair of escaped prisoners who had just come out of an irrigation ditch. Ed tells us, incidentally, that Dutch is knocking them dead businesswise back there in Texas and next time he comes to California will probably arrive with a retinue like a Dahomey prince.

Larry Marsh, Shell Oil Company alkylation plant whiz at Wilmington, made a cleanup in the Western surf casting tournament at Long Beach recently. Personally we have never tried casting surf but it certainly sounds like an interesting pastime. In any case, Marsh the Elder bettered all existing records in long cast and long cast average in the Class A event and came home with a barrel full of trophies. However, he didn't capture all the glory, for Larry, Jr., appears to be a ferrule off the old fishing rod if we may coin a phrase and we'd like to see anybody try to stop us. This young angling genius is a mere 13 years old, but he easily took high honors in the Class A junior championship which makes his third contest win. As a matter of fact, the Marshes either have to stop entering casting tournaments or move to a larger house. They are actually being crowded out of their present domicile by the expanding collection of fishing trophies. It should be noted that the runner-up in the open casting championship in which there is no restric-

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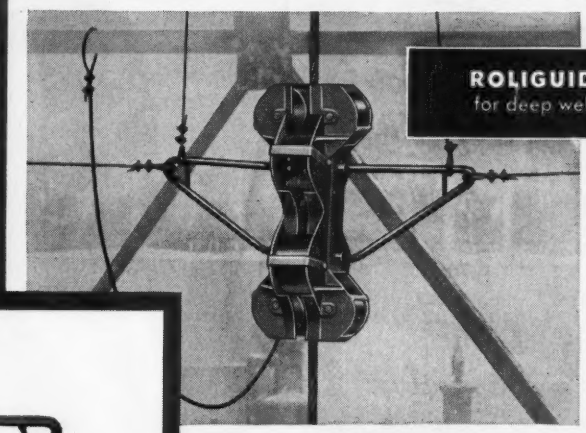

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- Eight rollers contact the line for positive stability.
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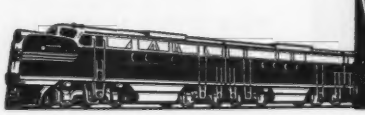
Santa Fe—all the way



Santa Fe

tion as to equipment was another Shell employee, Slim Boudreau, whose best cast was beaten by a scant and extremely annoying three inches

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Making a roundup of last minute news of consequence we note that Hal Davis, representative of Myers Drum Company and T. D. Williamson, Inc., is now settled in his new office at 325 West 17th Street. When you call on him, however, pay no attention to his invitations to play gin rummy or golf. He is a sharpie at both and unless you are too, you are not at all unlikely to be permanently injured. Last we heard, Dave Kilgour was roaming through the heather or its equivalent away up in Vancouver, B.C., which is his old stamping ground. They have been having a good time galivanting around among old friends and having another look at old haunts. Herb Reed, the Standard Oiler, is back on the job, looking tophole after a brief sojourn in the High Sierras. Herb and Ham Bell were reminiscing about their boyhood days in Oakland recently—they were apparently near neighbors but have just discovered the fact. One of their early delights was rowing along the water front picking up the flotsam and jetsome that was brought in by the lapping waves. Once Ham threw a hitch around what he thought was a barrel of beer and rowed and rowed until he was absolutely pooped before discovering that the thing was anchored —it was a buoy!

I. J. Browne, General Petroleum, and E. C. Yerby, Richfield Oil, spoke on the new McMahon jet oil well pump at the regular bi-monthly meeting of the Los Angeles Basin chapter, American Petroleum Institute. The meeting was held in the Shell recreation hall at Signal Hill.

Gerald C. Lambert, investment house owner and one of the best informed men in California on oil matters, is vacationing on a dude ranch at Cody, Wyo.

Dick Miesse, who in recent years has given most of his attention to oil development in Texas, still maintains his beautiful home in Santa Monica and is a frequent visitor there. His operations in the Mid-Continent fields have been crowned with unusual success.

Personalities IN THE NEWS

DeWitt Langford, formerly active in the Mid-Continent area, has entered the California producing industry and has opened offices for his Langford Oil & Gas Company in the Havenstrite Building, Los Angeles. He already has acquired more than a half dozen important drilling blocks in various areas of the state.

Hale and—hearty—and up and around after several weeks in the hospital, Fred V. Gordon, veteran oil operator, is cooking up new plays. Gordon has been identified through the years with many important developments in the state.

A principal speaker at the 25th annual meeting of the North American Gasoline Tax Conference at Columbus, Ohio, October 1-3, will be J. E. Phillips, excise tax counsel for Standard Oil of California.

W. M. Jacobs, vice president in charge of sales and director of the Southern California Gas Company at Los Angeles, was elected president of the Pacific Coast Gas Association at the PCGA's annual convention held in San Francisco.

Effective October 1, Max C. Eastman, petroleum engineer in charge of oil field operations for the Navy Department at Elk Hills, has resigned. He plans to enter private business.

H. B. (Pat) Patten of Signal Oil Company in the Stockton area, who recently passed away at 59, was the son of the late Gilbert Patten, the creator of the famous storybook hero "Frank Merriwell."

For recognition of his heroic action without regard for his personal safety, W. C. Jackson, (center) of Los Banos, California, received the Joseph A. Holmes Safety Association Medal of Honor in Los Angeles on August 30, from S. F. Bowlby (left), Los Angeles area vice president for Shell Oil Company. Mining Engineer S. S. Crawford (right), was on hand to represent the U. S. Bureau of Mines in San Francisco from which the Holmes award comes.

Desk and Derrick Club Elect Officers

Blanche Kelley, Union Oil Company, and Katherine Barnes, Schlumberger Well Surveying Corporation, both of Los Angeles, were recently elected officers in the Association of Desk and Derrick Clubs of North America. Miss Kelley was elected First Vice-President, Miss Barnes, Regional Director.

Kelley — Barnes

The Association is a new women's organization consisting of clubs located throughout the United States and Canada, all mushrooming from the parent club started in New Orleans on April 19, 1949. The Association of Desk and Derrick Clubs of North America now represents women from over 350 oil companies and boasts a total membership of over 1500! The Los Angeles Club although in existence only since June 27, 1950, now has over 400 members!

Popularity of the Desk and Derrick Clubs, according to Miss Kelley, is due to the basic purpose of the club, which is, "To promote among the women employed in the petroleum and allied industries, through an informative and educational program, a clearer understanding of the industry which they serve, to the end that the enlightment gained thereby may increase their interest and enlarge their scope of service."

This program is carried out by inviting prominent oil men to speak

IDECO *Full View Mast*

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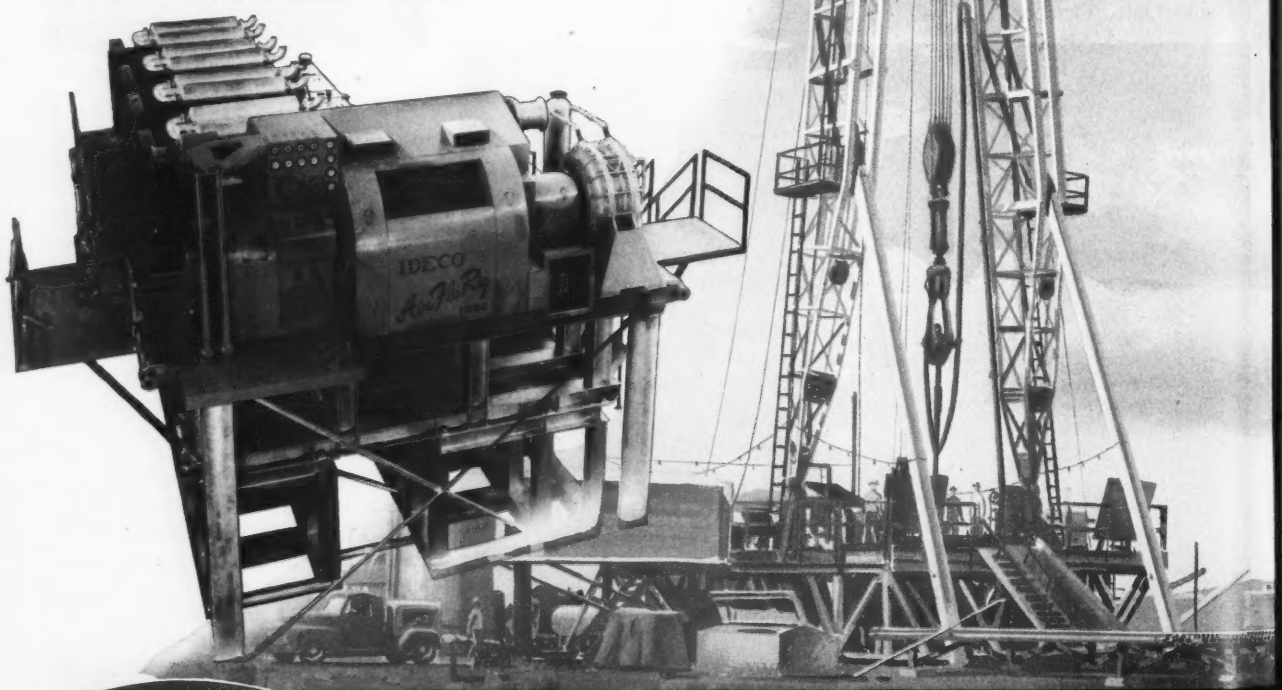
for Deepest Drilling

Here's the "right" combination to meet your deepest drilling requirements. The heavy-duty, large drum PR-1350S Air-Flo Rig is the largest torque converter on the market. It offers a flexibility never before attained in a mechanical drilling rig. For operators desiring a large internal combustion engine rig, the same PR-1350 large drum drawworks is used in connection with a nine speed transmission employing all IDECO AIR-TITE clutches. Speed change is accomplished by the use of a single hand wheel at the driller's position. The IDECO PR-1350 Air-Flo rig has consistently broken all drilling records on land and off-shore locations.

The new, big 143 ft. IDECO Full View Mast offers all of the advantages of the standard "heavy-duty" drilling derrick plus these important features: lower cost in moving and rigging-up... unlimited visibility from floor to crown... greater floor space from drawworks to pipe ramp, from leg pedestal to leg pedestal... and exceptional safety for crew and equipment.

For additional information on this deep drilling team, write IDECO 2410 Carson Street, Torrance, California.



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PLANTS: Beaumont, Texas; Columbus and Delaware, Ohio; Torrance, California

EXPORT OFFICES: Dallas, Texas; New York City; Torrance, California. Argentina—Buenos Aires; Brazil—Rio de Janeiro; Colombia—Barranquilla; England—London; France—Paris; Italy—Somma Lombardo, Varese; Turkey—Ankara, Istanbul; Venezuela—Caracas, Maracaibo.

WESTERN CANADIAN DISTRIBUTOR: Dominion Oilfields Supply Co., Ltd., Calgary, Alta.

at the regular monthly meetings and by taking actual field trips as guests of oil companies. Such activities teach the girls the operations of all divisions of the oil industry, so that they can apply this knowledge to their jobs. They learn at first hand what they have been writing about for years — rigs, refineries, drilling barges, etc.

Other officers of the newly formed Association are: Mrs. Lee Wilson Hoover, President, New Orleans; Miss Lucy Dee Owen, Second Vice-President, Houston; Miss Enid Bahle, Secretary, New Orleans; Miss Virginia Murray, Treasurer, New Orleans; and Miss Margaret Neff, Regional Director, Jackson.

Through their activities and the leadership of these officers the new association is destined to become an important force in public relations for the oil and gas industry.

Dr. Vladimir Haensel To Receive 1952 Petroleum Chemistry Award

Dr. Vladimir Haensel, Universal Oil Products Company, Chicago, was named as the 1952 recipient of the Precision Scientific Company's Award for achievement in petroleum chemistry. Announcement of the $1,000 citation was made at a Diamond Jubilee meeting of the American Chemical Society in New York.

Dr. Vladimir Haensel

The Award, which is administered by the American Chemical Society, will be presented to Dr. Haensel sometime next spring.

The thirty-seven year old chemist is the inventor of the unique Platforming process which is currently being accorded wide acceptance throughout the petroleum refining industry. Platforming is a new process for refining gasoline which employs platinum as the catalyst to completely rearrange the molecular structure of the motor fuel.

It has proved highly successful in upgrading low octane straight-run and natural gasoline. The process is also being used in the production of aromatic hydrocarbons—benzene, toluene and xylenes, of which there are marked shortages.

Platforming units are now in operation, under construction, or planned at more than 20 refineries, with approximate capacity of 100,000 barrels daily.

Dr. Haensel is also the co-inventor of a process for producing Triptane, the hydrocarbon having the highest antiknock properties of any known compound. For this discovery, he received the Chicago Junior Chamber of Commerce Award in 1944.

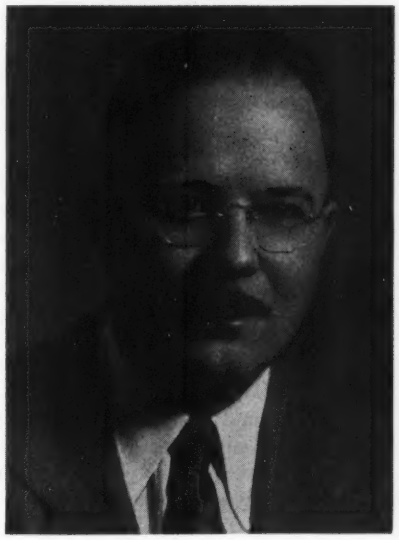
Dr. Haensel graduated from Northwestern University in 1935 and holds graduate degrees from that institution and Massachusetts Institute of Technology. He is a member of the American Chemical Society, Phi Lambda Upsilon and Sigma Xi.

He is the holder or co-holder of thirty patents and has published numerous articles in scientific journals since 1942. He is now division coordinator in charge of Universal's Cracking Research at the company's Riverside, Illinois, laboratories.

Directors of British-American Oil Company, Ltd., elected William K. Whiteford, chairman of the board, and Ole Berg, Jr., president of the company. Whiteford became president of B-A in 1943 and succeeds the late A. L. Ellsworth as chairman of the board. Berg has devoted his entire career to the petroleum industry and has had wide experience in both Canadian and U.S. operations. At one time he was an executive of Union Oil Company of California.

Darwin Clark Agency Opens Houston Office

To provide greater service facilities for its oil equipment, chemical and industrial clients in Texas, Darwin H. Clark Co., one of the oldest and largest industrial advertising agencies in the West, has opened a Houston office under the direction



Jack Rittenhouse

of Jack Rittenhouse, nationally known agency executive, editor and designer of fine printing. The agency has leased a two-story building at 1103 South Shepherd Drive, Houston, for its Texas Operations. The firm's Los Angeles headquarters are located in its own two-story building at 1139 West Sixth Street, Los Angeles, and the two offices functioning together provide exceptional facilities for planning, designing and producing unusually effective advertising for oil tool and industrial accounts. The firm also is the exclusive Los Angeles and Houston member of Transamerica Advertising Agency Network, with associate offices in fifteen leading cities from Coast to Coast.

Jack Rittenhouse for the past five years has been director of technical publications and an account executive with the Clark agency in Los Angeles. Previously he was head of his own agency in Chicago and Executive Secretary of Transamerica Advertising Agency Network. He is a past president of the Southern California Industrial Editors Association and a director of the In-

ternational Council of Industrial Editors, a member of the Texas State Historical Association, the American Institute of Graphic Arts, and the Zamorano Club of rare book collectors. He is the author of numerous technical, factual and fiction articles, as well as two books, one of which was selected as one of the best western books of 1949.

The Clark agency has received many awards for excellence of newspaper, trade paper, direct mail and outdoor advertising, and financial reports prepared for clients.

H. Victor Church has been named senior geologist for Oceanic Oil at the company's Bakersfield office. He will direct exploration in portions of California and the Rocky Mountain States. Church formerly was a district geologist for Shell Oil Company in Bakersfield. Prior to joining the Shell exploration staff, he taught geology and associated sciences at several schools and universities. He received his doctor's degree in geology from the University of Chicago.

The firm of Fitting and Jones at Midland, Tex., has been engaged by Oceanic Oil to supervise company exploration activities in West Texas and New Mexico. Ralph U. Fitting, Jr., and his partner, J. Robert Jones, have been associated in consulting work for several years. They are highly regarded by the industry, particularly for their work in the oil valuation field. William Sauri, once with Skelly Oil Company in Midland, is a recent new member of the Fitting and Jones organization.

W. C. Jackson of Los Banos, an engineer for Shell Oil, has been presented with the Joseph A. Holmes Safety Association Medal of Honor. He is one of seven persons to earn the medal in the United States during 1950. It was awarded by the U.S. Bureau of Mines. The engineer saved the lives of two truck drivers who were pinned in a burning truck last October 17 near Gustine.

W. R. Rouse has been appointed western general counsel of Union Pacific Railroad at Los Angeles, holder of large oil production in the Wilmington field. Rouse succeeds the late T. W. Bockes.

Schlumberger Announces Field Changes

H. W. True

Schlumberger Well Surveying Corporation has announced the following changes in its field organization:

W. J. Lytle has been appointed manager of the Permian Basin Division. He replaces A. Morazzani who recently transferred to Indiana as manager of the company's Northeast Area.

R. L. Morris is transferring to Houston, Texas from Lafayette, La. to become administrative assistant to J. de Menil, president of the Affiliated South American Schlumberger Companies.

W. W. Goode will replace Morris as division manager of the Louisiana Gulf Coast Division in Lafayette.

F. P. Kokesh, division manager of the Mississippi Division is transferring to the Engineering Department in Houston, and being replaced in Jackson, Miss. by H. W. True. True was formerly district manager in Houston.

Lytle, Morris and Kokesh are all longtime members of the Schlumberger organization. All three were employed in 1937 and have worked in many oil provinces in the United States.

True and Goode were employed by the company in 1946. Their activity to date has been confined to the Gulf Coast Area of Texas and Louisiana.

William G. King, Jr., Vice President and General Sales Manager of Richfield Oil Corporation, announces the appointment of Fred M. Jordan as Advertising and Sales Promotion Manager, effective this date.

Mr. Jordan was formerly Executive Vice President of Erwin-Wasey & Company, Los Angeles, and for 17 years has been a member of the Board of Regents of the University of California.

Oregon Test On Calendar

Lumbermen of Roseburg and a geologist once associated with Phillips Petroleum Company are reported planning to undertake wildcat well operations in the Roseburg area. Information from the Oregon city indicated that more than 135,000 acres have been blocked up and that the venture will explore to a minimum depth of 3500 ft. In this western portion of Oregon and in many areas of this state and Washington seeps abound in profusion. Until prospect drilling proves otherwise they may be just that—nothing more than seeps.

Sunray Oil Corporation's drilling pushers in the Pico Canyon Field. Left to right: Bert Winn, M. J. Simmons, John Beard.

Kern County OIL NEWS

News of any activity in Kern this month might be measured by oil rigs. We took a count the day before Labor Day and we found over seventy rigs off the racks and in full speed ahead.

EQUALLY DIVIDED between "wildcats" and proven areas the 70 group while not too spectacular was encouraging. Some pipe trouble was developing in the firm areas where it was known there was oil.

KERN IS TAKING PART in its share of a MILLION A DAY barrels which are ringing up cash registers for California . . . an all time high so we are told. Petroleum production and demand march on as they should if we mean business.

"OIL COMPANIES OBJECTING TO ASSESSMENTS" . . . headline in the local press just fifty years ago this month. How do you like that? And the oil companies are still objecting. Is there no end to patience?

HOWEVER, the cost of Kern County government this next fiscal period will require four cents less than last year. So all you pay is $2.04. This does not include special districts, sewerage, mosquitoes, etc.

ONE THING WRONG happens to be that so much talk has been made over Kern taxes that every time we get a sucker for a plant here he brings up that old tax rate. After all we cannot pin comparisons on taxes per person or population . . . in this particular case. There must be some compensating reaction . . . let's find out about it. . You mean to tell us that Kern has no redeeming features for industry to locate here . . . Well, the oilwigs haven't given up yet.

YOU REMEMBER THE SCOUTESS . . Gene Hurley . . . out at Richfield . . . well the old wedding bells rang for her . . . and JULIAN JENSEN . . . young prosperous realtor in and about Kern County was the fortunate person that became her better half.

HOLIDAY AND AMERADA TOO . . . or so we think as we tried to call ANDY ANDERSON for news from the AAPG this Labor Day of work when we thought ANDY WAS not as absent as we thought he was.

HAS HIS OWN production now according to the Scouts. That is of course TED EASTON . . . petroleum engineer. Location Tejon Hills.

OFFSETTING WORK is always going on . . . and the first thing we know it seems to be Gene Reid who gets in there with the fastest.

WILD GOOSE GAS wells are reported by Kern oilfolk as an interesting feature of the industry. One of the boys from Honolulu tells us that their well, the "Humble" out near the Marysville Buttes is in good showing. Proving up the area for gas under a contract which calls for gas specifically, Honoluluwigs are drilling ahead to beat deadline. Deadline in this instance means before shutting down for the wild goose hunting season. No drilling or any rigs may begin or be built 30 days before the hunting season for geese, according to our operator.

AAPG has a lot of changes in personnel according to the current issue. Such personnel includes all the Western facilities of the oil industry. Andy Anderson is the "communiquer" up this way. He slaves for Amerada and is the local scribe for information on AAPG.

AT ARVIN this month Sunray Oil Corporation touched off some excitement by operating a newly acquired lease near The Texas Company's discovery well. The Mitchell Community leasehold was the point of interest, which was consummated by Sunray. Havenstrite's interest just south has prepared action plans for a tester. If this oil company completes this forward pass, everyone around the "knowhow" reports it may mean a drilling scramble for stakes that look like offsetting practice.

THE MAX BROWNS with Evelyn spent their vacations in Salt Lake. They have returned to Taft and with them along came Max's folks, mother and sister Hedvig Brown and Vendle.

JACALITOS HILLS district welcomed a wildcat by Standard Oil Company of California last month as it spudded in for an extension of present production. Kern keeps tract of new wells in Fresno County.

OUR FRIEND Ted Easton has

SHAFFER TOOL WORKS hopped off a "Mainliner" the other morning to talk with JOHN SPEIRS (left) who is a "comer" in the oilwell drilling business after drilling a hundred or so or more water wells. Others with JOHN are (left to right) HARRY BARNETT, ROBERT LANGSTON, ELMIN MILSON who breakfasted at the Kern County Airport in Bakersfield.

RELAX mr. contractor!

YOUR GLOBE "2-Cutter" ROCK BIT
STARTS 'EM STRAIGHT and KEEPS 'EM STRAIGHT
In Crooked Hole Country

Although Globe "2-Cutter" Rock Bits are used successfully for drilling in a wide variety of formations, they have proved particularly outstanding in crooked hole country. They not only start and keep the hole going straight, but they work wonders for straightening hole that has been started off vertical by ordinary bits. Crooked hole country is no problem to a Globe "2-Cutter." See your nearest Globe office or representative for complete information.

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. . . A REAL SPEED MERCHANT.

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found his second well according to new reports coming in from Tejon Hills this month.

OUR TAFT FRIENDS report that old friend of ours LOUIE DOPYERA's BOB has started drilling up at Devil's Den with a set of cable tools. Saw M. V. BARTCH who said they were idle for the present tester which is down only a little over 300 oil fathoms.

TAXABLE BUSINESS in Kern ranks ninth place. Taxable items total over a quarter of a billion dollars for last year. The state of California reported $12 billions.

GEOLOGIST for Richfield WALTER R. RECORD has been added to the oilwig community of newcomers and we see him once in a while.

SAW ROCKY MT. DRILLING COMPANY'S new addition to the force out Pierce Road way. None other than LENARD STEELMAN . . . nice folks planning on buying a home here so we learn.

OTHER NICE NEW FOLKS we met were Mr. and Mrs. PAUL B. WOODS of the Houston Oilfield Material Company. Paul is employed as an engineer. Also Republic Supply Company has added another . . . GRANT HOWARD from Madera where they hope to have oil someday with a rig in plain sight now.

BAASH ROSS TOOL COMPANY's Hal L. Messinger came up from Ventura where he returned over the holiday for a last seasonal dip for a while.

WARREN BRUCE of Taft tells us that LAWRENCE BANDEROB is in charge of the Petroleum Interests and exhibits at the Taft Community Fair. Although Warren deplores the small premium if he gets first, second and third prize at the Kern County Fair, he promised to show just the same and will practice up at the local fair in Taft first.

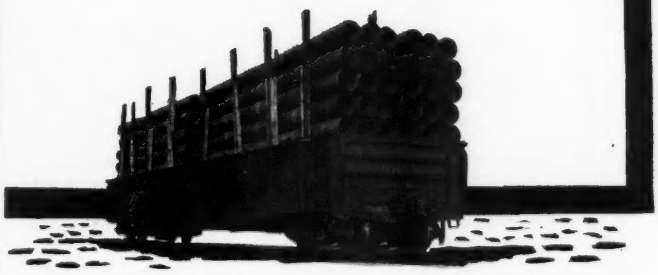
TAFT IS PLEASED over the news that Western Gulf picked up some drilling land near Calder's Corner.

TAFT IS ALSO short a fine citizen. MAX C. EASTMAN, petroleum engineer in charge of the oilfields for the Navy, who resigned to enter private business. He leaves October 1 and will complete twelve years in the Taft area. He co-drafted with H. P. Stoltz and Captain H. Wilhelm the present Unit Plan Contract . . . for the ¾ million b/d oilfield.

PUBLISHER of the DAILY MIDWAY DRILLER . . . Walter M. Keene made one of the finest presentations ever accorded Taft Rotary on the subject of his trip to Europe. In reviewing the report we were told among things said was "the U. S. of America is the only nation in the world that is made for its people" . . . "it has a form of government that fits the people." He thinks Europeans have been caught in a trap from which they will never get out. Something could be done about it he thinks, but the incentive is gone. East Berlin is not trying to be rebuilt. Much time is spent criticizing America, he reports.

SPEAKING OF SEVENTY drilling rigs, reminds us that in Cuyama alone we counted seven wildcats. All going after deep stuff except Humble Oil which had bad luck but understand it will probe below the 3000 foot mark where they are now.

CONDUCTOR PIPE



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any *Length*
any *Quantity*

CONDUCTOR PIPE of any diameter is immediately available at WoSco at all times. Common diameters are stocked—special orders are made up to your specifications in Western Oilfields Supply Co. shops without delay. Save time and money by just calling WoSco!

IMMEDIATELY AVAILABLE

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WESTERN OILFIELDS SUPPLY CO.

Ohio Oil Company's Vasquez No. 17 in the Del Valle Field. Company rig drilling. Left to right: W. C. Greenlee, racker; Patty Ryan, driller; N. S. Woodside, cathead; N. C. Tuttle, derrick; B. H. Doane, pusher; Bill Moore, lead tong; O. C. Engledow, fireman.

Other depths run 7200 to 9100, we were told.

PETROLEUM ENGINEER John L. Porter returned from Punta, Chile, recently and thinks Chile is a sportsman paradise. Geese are so thick people do not bother with them.

LOCKHEED has established a sub-assembly plant in Kern County and will begin operations about December 1, according to all reports. The first five days signed up the 300 persons needed for the assembly line. Striking thing about it is that 2000 others were classified for later date if needed. STILL more striking . . . oil men told us the other day that they had some trouble . . . getting oil workers . . . and what is more, they hired some men over sixty not long ago.

Several OTHER manufacturing plants . . . one not a war baby . . . are contemplating locating in Kern. Oilwigs view this with no concern but think ahead as a new tax base.

KERNOILWIGS claim that with the "big inch gas" completed through Kern, with Central Valley Project now intact that industry will come this way with less persuasion. Recent inquiries stirred up by local civic organizations bear this out.

ONE THING BOTHERING many Kernfolks is the proposal by **someone** that the price of natural gas should be set at the well and regulated by **someone.** Some smart guys are lining up test cases over PUC regulations.

- A Competent Staff of more than 25 Geologists and Petroleum Engineers
- Most extensive logging experience in California
- Exclusive analytical evaluation of Data
- 8 Logging Units in operation in California

These factors mean SERVICE PLUS on the logging requirements of your important Wildcat Wells in California.

FORMATION LOGGING SERVICE COMPANY

(Peters Logging Service)

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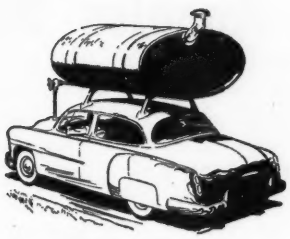
Subscriptions accepted only from persons actively connected with the oil industry.

CALIFORNIA OIL WORLD
2404 W. 7th St., Los Angeles 5, Calif.

Corporation taxes affect you, too!

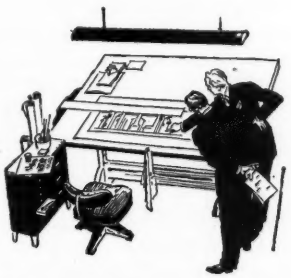
1. Most of us figure that corporation taxes are someone else's problem. Maybe that's because we never pay them directly. Actually, we all pay some corporation taxes *indirectly*—in the price of things we buy. But there's more involved in corporation taxes than just paying them. Here's an example:



2. The average U. S. automobile uses 648 gallons of gasoline per year. So for each new car that is added to the American total, some American oil company has to invest about $521 in new facilities.* It takes about that much in producing, refining and distributing equipment to supply the additional gasoline.

3. If we added only 2 or 3 cars to our American total each year this wouldn't present any problem. But last year we added almost 3 *million*. Naturally the oil companies, big and little, are always happy to build the new facilities that these new customers require. For it means new business.

*Sources: O. I. I. C., *"Report on Supply and Demand of Oil Products in 1951"*
A. P. I., *"Petroleum Facts and Figures," 1950*



4. At Union Oil, for example, we plan to spend $60 million in refinery improvements alone during the next 4 years. For our economists estimate that we will need 23% more capacity by 1960 to meet our customers' needs. But here's the rub: Traditionally, about 80% of American oil companies' expansion has been financed out of profits.

5. Today those profits are being taxed at such a high rate, this expansion may be seriously curtailed. In fact, it might be slowing down already. Certainly, if taxes are raised much higher, two things will happen: (1) There won't be enough profits left to finance additional facilities; (2) the earnings of oil companies—and all U. S. corporations—won't be high enough to attract new capital for the purpose.

6. Without either profits *or* new capital, expansion of all U. S. corporations will simply have to stop. If that happens the whole nation's economic growth will be stunted—and *your standard of living* (along with everyone else's) will steadily decline. So corporation taxes aren't just "someone else's problem." They affect each individual in the nation too.

UNION OIL COMPANY

OF CALIFORNIA

INCORPORATED IN CALIFORNIA, OCTOBER 17, 1890

This series, sponsored by the people of Union Oil Company, is dedicated to a discussion of how and why American business functions. We hope you'll feel free to send in any suggestions or criticisms you have to offer. Write: The President, Union Oil Company, Union Oil Building, Los Angeles 17, Calif.

Manufacturers of Royal Triton, the amazing purple motor oil

Field Development

Los Angeles Basin

McNally Ranch Leasing Center

Ted Sterling, widely known member of the oil fraternity, and millionaire builder Paul W. Trousdale have leased 1736 acres of the McNally Ranch between fields at Santa Fe Springs and West Coyote.

The property is near La Mirada station of the Santa Fe Railway and is in Sections 15, 22, 23 and 24-3s-11w. Offsetting General Petroleum's Librown No. 1, the land also was the location two years ago of the General's McNally No. 1 test. Both of these projects were credited with showings. However, on conventional trials for a number of reasons they failed to live up to commercial expectations. Texas Company has entered into an operating agreement with the Sterling-Trousdale combination and in the near future will launch a test well. Texaco has tried the area before. The company drilled McNally No. 1, No. 2 and No. 3 to respective depths of 9000, 9658 and 9535 ft. They were abandoned in that order in 1941, 1942 and 1943.

If Texas Company's endeavor fails of its purpose, Sterling and Trousdale, in their own individual right, probably will drill a test well on the west fringe of the West Coyote field.

Andrew McNally of the great Chicago Rand-McNally map making company is owner of the ranch. The McNally family is said to have purchased the ranch many years ago providing a ready excuse for more frequent visits to Southern California.

Southeast of the McNally Ranch, leasing is brisk in the Leffingwell area where some years ago Standard Oil drilled a couple of wildcats. Showings were encouraging, but excitement cooled when tests were disappointing.

Tevis Morrow Oil Company's W. F. No. 38 in the Placerita Field. Pike Drilling Company, drilling contractor. Left to right: W. W. Hall, derrick; G. L. Cooper, lead tong; F. R. Witherspoon, pusher; S. S. Tannehill, cathead; R. L. Crissman, driller.

Imperial Valley Wildcatting Near

Texas Company appears to be nearing the completion stage with its far-flung leasing campaign in Imperial Valley, with signs that a wildcat well will be launched in the next 90 days. Texaco's ground is composed of government, privately-owned and Indian reservation land. The land under lease dots the land at intervals all the way from Palm Springs to close to the Mexican border.

Placerita Test Starts

One mile east of production in the Placerita field Rothschild Oil Company has begun work on its Wickham-Ferrier No. 1 wildcat on Sec. 32-4n-15w. On Sec. 6-3n-15w, Chauncey Chamberlain is rigging his Poco No. 2 test.

Corona Del Mar Test Oil Failure

On the Irvine Ranch in the Corona Del Mar area between Newport Beach and Laguna, Shell Oil has abandoned its Irvine Four No. 51-130 on Sec. 5-7s-9w at a depth of 9043 ft. In the San Joaquin Hills, Shell has completed on the pump its Irvine One No. 44-166 on Sec. 11-7s-9w. The project, spudded November 16, 1950, drilled to 9826 ft., before plugging back to 1620 ft. for the final touch.

Weldon Canyon Test Now Fishing

Weldon No. 1 wildcat test, sponsored by Apex Petroleum Corporation, Ltd., Long Beach, has been drilled to 2070 ft. and is fishing. The drill site is on Sec. 24-3n-16w in Weldon Canyon, Los Angeles County.

Lopez Canyon Try Suspended

E. L. Doheny and Joe R. Neaves, Jr., have suspended drilling at 4520 ft. in their Reeves No. 1 test on Sec. 1-2n-15w at Lopez Canyon, Los Angeles County. Drilling will remain at a standstill pending a decision of whether or not to go deeper. The project was credited with showings near 1300, 1900 and 2600 ft., but the main objective around 3800 ft. was evidently barren. Others with substantial land holdings in the area, in addition to the Doheny-Neaves interests, include Terminal Drilling and Bell Petroleum.

Anza Wildcat Location Staked

Crawford H. Bent has location staked for his Bent No. 1 prospect job on Sec. 21-7s-3w in the Anza area of Riverside County. In the Prado Dam area, Cherrydale Oil's Cherrydale No. 1 test on Sec. 8-3s-7w is making hole below 1000 ft. V.O.D. Oil Company is rigging rotary to deepen from present depth of 1620 ft. the Berghofer No. 1 wildcat on Sec. 29-4s-6w.

Montebello Wildcat Rigs

Felix Mallon, veteran oil producer and oilfield supplyman, is approaching the act of spudding with his Castle No. 1 test well on Sec. 31-1s-11w on ground east of Montebello. Some miles east and a little south, Texas Company's McGinnis No. 1 try on Sec. 31-1s-10w at Puente area is moving in. ing in.

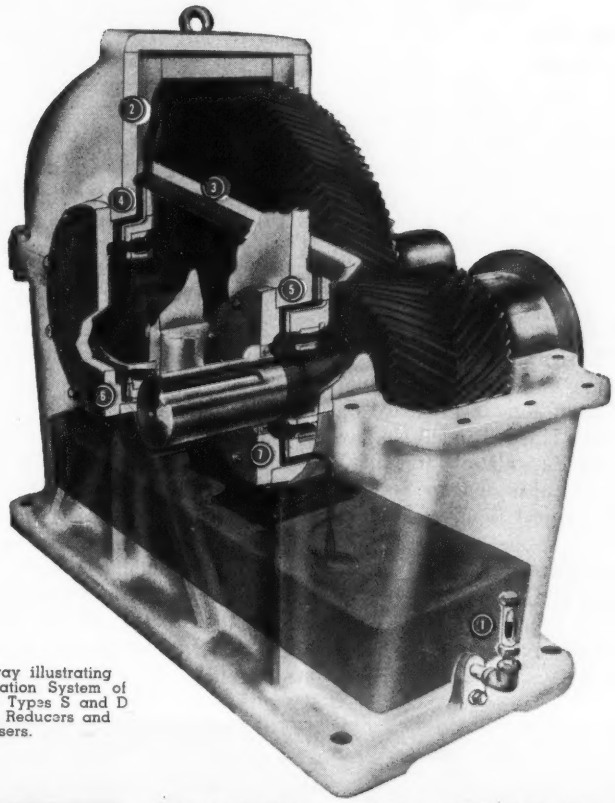
Loma Verde Well Works

Nothing untoward has come to pass to a depth of 6750 ft. in Trigood Oil Company's Ayala No. 2 test on Sec. 29-5n-17w in the vicinity of Loma Verde, Los Angeles County. Dean Sheldon is in charge of the company's engineering phase of operations.

Whittier Test Deeper

Drilling is at a depth of 5150 ft. in Los Nietos Company's Whittier Crude No. 2, a wildcat well on Sec. 22-2s-11w near the city of Whittier.

gears with Guts



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Simi Test Progressing

On Sec. 6-2n-18w in the Simi area, Hancock Oil Company is drilling at 1716 ft. with its Strathearn No. 16-6 wildcat. Still idle at 270 ft. is the Simco, Inc., No. 1 test on Sec. 6-2n-17w.

Oxnard Try Starts Work

Some 2700 ft. east and 2215 ft. north from the southwest corner of Sec. 6-1n-21w near the town of Oxnard, Jack Herley is starting work on his J. H. No. 1 wildcat. Idle at 628 ft. is Pacific Supply Cooperative's Nathan No. 10 on Sec. 23-5n-20w at Sespe.

Reyes Peak Test Fishing

A fishing job is holding up normal drilling operations in Standard Oil of California's Hattie Russell No. 1 wildcat in the Reyes Peak area of Ventura County. Located on Sec. 11-6n-23w, the project is down 7671 ft.

Coyote Creek Wildcat Drills

Ventura County's Coyote Creek is the location of Sunray Oil's Dunshee-One No. 1 exploratory project on Sec. 26-4n-24w, which continues to make hole steadily ahead at 1478 ft.

Yolo County Wildcat Spuds

Mohawk Petroleum's scheduled 3500-ft. test on Sec. 17-8n-1w in the Pleasant Creek area of Yolo County has spudded. Named Shell Pleasant Creek Unit No. 5, the well is three-quarters of a mile south of Shell's Pleasant Field gas field.

Kirby Hills Test Drills

When last reported Shell Oil's Shell-Trico Unit No. 1 wildcat on Sec. 19-4n-1e at North Kirby Hills was drilling at 7350 ft. At East Kirby Hills, location is staked for Shell's Kirby Comm. No. 7 on Sec. 13-4n-1w. Kirby Hills is in Solano County.

Carpinteria Try Suspended

Suspended temporarily at 1560 ft. is the latest word on D. S. Fletcher's Catlin-Fletcher No. 1 on Sec. 33-4n-25w in the Carpinteria area. At Figueroa Mountain, Honolulu Oil's Mills No. 1 wildcat has reached a redrilled depth of 2941 ft. Original bottom is 3232 ft. The derrick is on Sec. 26-8n-30e.

Sunray Oil Corporation's R. S. F. No. 97-6 in the Pico Canyon Field. Company rig drilling. Left to right: R. O. Hardeman, racker; E. H. Nickerson, lead tong; J. B. Kief, derrick; R. E. Day, cathead; O. E. Roberts, driller.

Summerland Test Staked

At old Summerland, one of the earliest producing areas in the state, T. & T. Oil Company has staked Brambilla No. 1 on Sec. 16-4n-26w. In the Corral de Quati area, Shell Oil's Orton No. 1 is digging at 3743 ft. The well is on Sec. 23-7n-30w.

Orcutt Test Drills Ahead

Union Oil Company's Hartnell No. 12, a scheduled deep test on Sec. 22 9n-34w in the Orcutt field in Santa Barbara County, is coring and drilling ahead below 6900 ft. In the Tip Top-Fresno area of Ventura County, the company's Ex-Mission Weldon Canyon No. 4 on Sec. 3-3n-23w is coring and drilling on down at 2840 ft.

Solano County Wildcat Quits

At Van Sickle Island in Solano County, Brazos Oil & Gas Company's Concord Gun Club No. 1 explorer on Sec. 33-3n-1e has been written off at 7003 ft. The venture drilled on ground one and one-half miles southwest of Collinsville and two miles northeast of Pittsburgh.

Ventura Avenue Well Excellent

Shell Oil Company has brought in another good well on its Taylor lease in the Ventura Avenue field. Taylor No. 135 was drilled to 11,045 ft. and was completed flowing at the rate of 1300 barrels of 30.6 gravity oil daily through a 14/64-in. choke. Drill site is on Sec. 29-3n-23w.

Ojai Test Wells Begin

The Ojai area of Ventura County is the scene of two new test wells in the starting stage. They are Bankline Oil Company's B. & L. No. D-1 on Sec. 12-4n-22w, and E. H. A. Andrew's Carty No. 1 on Sec. 11-4n-23w.

San Gregorio Wildcat Testing

Bell & Burden, Inc., prominent contract drilling organization, is drilling an interesting wildcat well on its own

The Eagle and the Oyster...

When God made the oyster, He guaranteed him absolute economic and social security. He built the oyster a house, a shell, to protect him from his enemies. When hungry, the oyster simply opens his shell and food rushes in for him.

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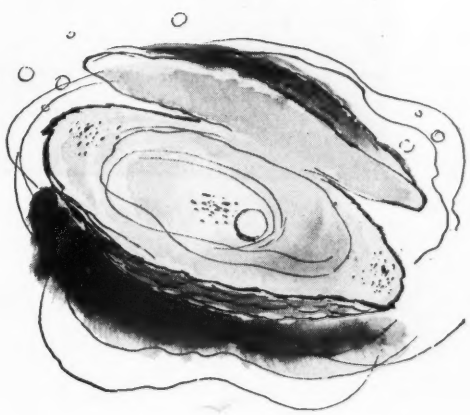
The eagle, not the oyster, is the emblem of America.



Mobilgas

GENERAL PETROLEUM CORPORATION
(A Flying Red Horse Company)

4-2

account in the San Gregorio area of San Mateo County. At present the venture is at a depth of 4500 ft. and undergoing conventional trials. The drill site is on Sec. 13-7s-5w. Richfield Oil in the near future will drill its Isenberg No. 1 on Sec. 12-7s-4d at La Honda.

Bean Hill Test Begins

Union Oil has commenced work on its Santa Cruz Land Title Company No. 1 wildcat on Sec. 28-10s-1e at Bean Hill, Santa Cruz County. Drill site is one-quarter mile west of Union's No. 1 explorer on the Teresa Hihn Ranch, which is drilling at a depth of 4810 ft. on Sec. 34-10s-1e. Bean Hill recalls that Chinese farmers once grew beans in the area.

Sutter Island Wildcat Grinds

At Sutter Island in Sacramento County, D. D. and Dorothy Dunlap are making hole ahead at 4630 ft. with Dunlap Natural Gas-Graham Comm. No. 1 on Sec. 6-5n-4e. Texas Company's Aldrich No. 1 test northeast of Isleton on Sec. 17-4n-4e at 3776 ft.

Strafford Test Staked

Paul L. Cooper, et al, has staked location for Metzger No. 1 wildcat test on Sec. 23-3s-11e in the Strafford area of Stanislaus County.

Buttes Creek Test Grading

Roads are being graded for the Harry H. Magee, Operator, Brady No. 2 on Sec. 20-17n-1e in the Butte Creek area of Butte County, recently opened up by Honolulu Oil with Wild Goose No. 1. Location is one-half mile south of the discovery well which was finished for approximately 3,500,000 cubic ft. of gas daily. Meantime, Honolulu is drilling its second well, Honolulu-Humble-Wild Goose No. 2 on Sec. 18-17n-1e, below 3200 ft.

Monterey County Wildcats Expire

Texas Company has abandoned its Gould No. 1 wildcat on Sec. 9-19s-6e at Reliz Canyon in Monterey County. The venture, located three miles southwest of King City, quit at 6997 ft. In the San Ardo area, Jergins Oils' Lanigan No. 251-35 test on Sec. 35-22s-10e has been abandoned at 2873 ft. The company also has given up its Aurignac No. 2 on Sec. 9-23s-10e at Los Lobos. Test digging quit at 3959 ft.

Vaca Mountain Wildcat Works

Western Gulf Oil Company is down 1600 ft. with its J. M. Knowles No. 1, an exploratory well on Sec. 28-9n-3w in the Vaca Mountain area of Napa County. At Sargent in Santa Clara County, Fred W. Shire and Dan A. Fisher's Fisher & Shire No. 1 wildcat on Sec. 36-11s-3e is currently idle at 186 ft. Southeast of Petaluma in Sonoma County, Tide Water Associated is drilling at 2530 ft. on Sec. 14-4n-6w.

Castaic Test In

Humble Oil & Refining has added Newhall Corp.' No. 1 test on Sec. 24-4n-17w at Castaic putting out 455 barrels of 18.5 gravity oil a day through a one-quarter-in. bean along with 198,000 cubic ft. of gas daily from 10,901 ft. Humble's N.L. & F. No. 6 on the section is digging at 11,240 ft. Superior Oil continues to drill steadily ahead with its N.L. & F. No. 1 on Sec. 8-4n-16w. Present depth is 8530 ft. The Ted Sterling, Operator, Rynne-Fisher No. 1 on Sec. 35-5n-17w has progressed without incident to 4400 ft. and is going on down. With total bottom at 3648 ft. and plug at 2450 ft., Bishop Oil & Exploration Company's Mary Austin No. 1 on Sec. 28-6n-17w has suspended drilling for a time at least. Still a location as this is set down is Continental Oil's Alexander No. 1 on Sec. 23-5n-17w.

Seal Beach Wildcat Digs

In the vicinity of the pounding surf at Seal Beach, Continental Oil's Bixby No. 62 on Sec. 2-5s-12w is drilling at 9700 ft. in Bixby No. 62 test. Elbe-USL No. 1 wildcat in the Ridge Basin area is a location on Sec. 20-7n-17w.

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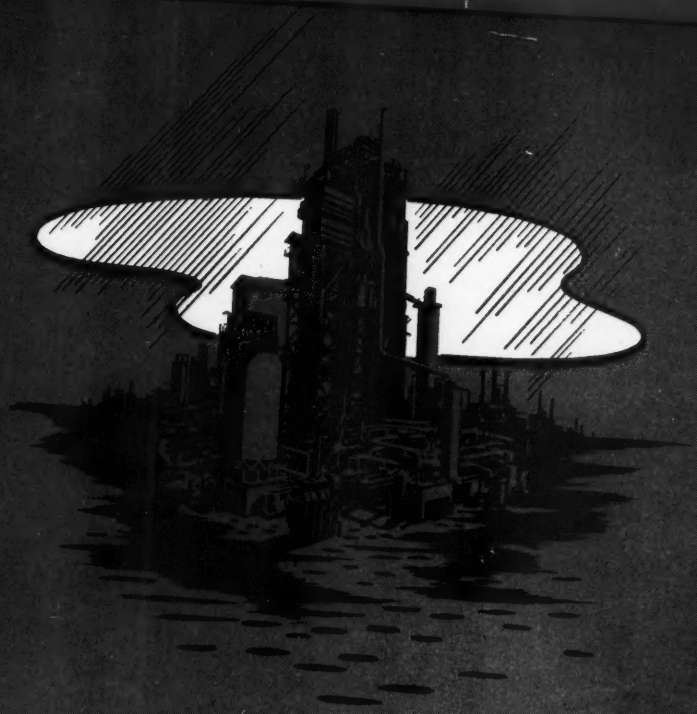

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San Joaquin Valley

Camden Area Interest High

When Elmer C. von Glahn's followup well to his discovery in the Camden area of Fresno County failed to duplicate success of the finder, interest there rapidly waned. Camden, however, has attracted new attention because Santa Fe Drilling Company appears to have poked into a zone comparable to that penetrated in the discovery. Santa Fe's Dyson No. 1 on Sec. 6-17s-20e has run, landed and cemented casing at 6090 ft. The well was drilled to a total depth of 6576 ft. and following a sidewall sampling of the lower portion of the hole it was plugged back to 5110 ft. Location is a mile and one-half northwest of the pool finder on a 40-acre farmout from Cleveland Oil Company. Cleveland holds some 600 acres in the area. Luck was not with Julio V. Dougherty & Associates' No. 38 test, approximately three-quarters of a mile northeast of the discovery. The well, on Sec. 4-17s-20e, was abandoned at 6509 ft.

Dagany Gap Wildcat Digs

On Sec. 3-25s-18e in the Dagany Gap area of Kern County, B. C. Mackey's Independent-Dagany Gap No. 1 exploratory well is drilling steadly on down at 1240 ft.

Bacon Hills Being Tried

Drilling at last reports had reached 4630 ft. in Superior O'l's Theta No. 54-20 test well on Sec. 20-28s-20e in the Bacon Hills area. No showings have been reported to date, but Superior usually "brings home the bacon."

Cuyama Well Holds Interest

Trans-Oceanic Oil Company's Mackie No. 1 on Sec. 19-11n-27w evidently has reached the interesting stage. The well at present is down 7398 ft. and this appears to be bottom, with showings encountered in the Dibblee probably of enough worth to call for the running of pipe as a prelude to regular trials. Trans-Oceanic is headed by David M'Divani.

Devils Den Well Testing

After drilling and coring to 3335 ft. with its Strode No. 2 wildcat on Sec. 15-25s-18e at Devils Den, Gilliland Oil Company and C. O. Davis are testing the interval of 3185-3250 ft. Elko Drilling Company's Elko-Smith No. 1 test on Sec. 29-25s-18e is idle at 1300 ft. South of the Devils Den field, Robert Dopyera and M. V. Bartch are drilling with cable tools at 360 ft. in B. & D. No. 15 on Sec. 2-26s-18e. The latest information from James S. Sewell's Porter No. 1 on Sec. 16-25s-18e at Devils Den denoted water was being swabbed from a redrilled depth of 3175 ft. Total bottom is 3583 ft.

Cymric Try Digs

Union Oil's Anderson No. 88-26 on Sec. 26-29s-21e in the Cymric district continues to core at 4700 ft. Nothing of interest has been reported to present level.

San Joaquin Valley

Western Gulf Oil Company has leased considerable land in the Calder area, west of production in the Greeley field. The property involved is west of a trio of producers completed by General Petroleum a couple of years ago at Calder. Western Gulf's acquisition to date takes in ground on Secs. 16, 22 and 27-29s-25e.

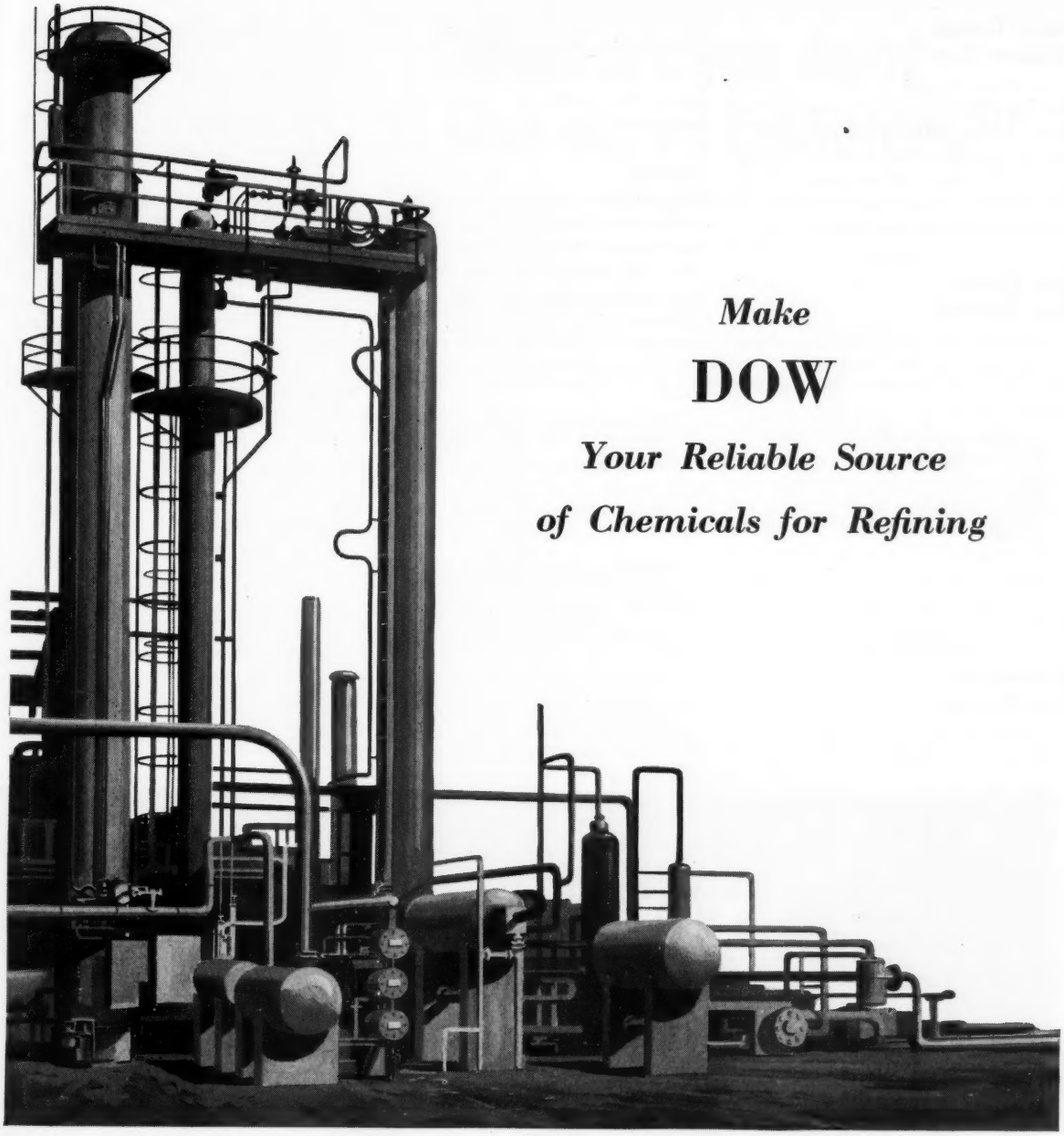
Coffee Canyon Test Bottomed

Hubbell Oil Company, headed by Adrian C. Hubbell, Long Beach district, has bottomed its Hubbell-Spafford No. 1 test on Sec. 6-28s-29e in the Coffee Canyon sector at Round Mountain at 1492 ft. and casing has been set at 1470 ft. Drill site is one location east of Los Nietos Companys' Coffee No. 5, which was completed last July at 1550 ft. for 1000 barrels of 15 gravity oil daily, cutting 24 per cent.

Edison Test Drills Ahead

Independent Exploration's westerly extension test of the Edison field, Malaga No. 13 on Sec. 15-30s-29e, is drilling ahead near 2800 ft., after coring gray sand in the Santa Margarita zone. The company has location staked for Theta No. 2 on Sec. 29-28s-20e in the Santos Creek area. EP-USL No. 2 on Sec. 4-29s-20e is pumping water from a plugged depth of 485 ft. The project went to an original bottom of 1074 ft.

Tevis Morrow Oil Company's Peggy Moore No. 31 in the Placerita Field. Pike Drilling Company, drilling contractor. Left to right: J. M. McKain, driller; Les Mondotte, pusher; W. B. Fowler, derrick; J. W. Barnhill, cathead; R. L. Higgins, racker.



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Pleito Creek Wildcat Digs

At Pleito Creek in Kern County, Humble Oil & Refining is making hole ahead below 1000 ft. in its KCL-B No. 2 on Sec. 35-11n-21w. Northwest of Rosedale, the company's Rosedals-Stevens Comm. No. 1 on Sec. 15-29s-26e is drilling at 4200 ft.

Salt Creek Test Staked

Richfield Oil has location staked for an extension test in the Salt Creek area of Kern County. The project, Miller & Lux No. 4, is to be an offset of Independent Exploration's recently completed Anderson No. 3. Location of the new Richfield job is 870 ft. north and 2425 ft. from the southwest corner of Sec. 18-29s-21e. West of Salt Creek, Cal-Air Petroleum Corporation's Sun Crest No. 1 wildcat on Sec. 26-29s-20e stands idle at 345 ft.

Kettleman Test Begins

Capital Company is ready to start work on its Capital No .16-8 venture for new oil on Sec. 8-25s-20e at Kettleman Hills South Dome. It is situated 1650 ft. north and 330 ft. east from the southwest corner of the section.

Burrell Try Digs

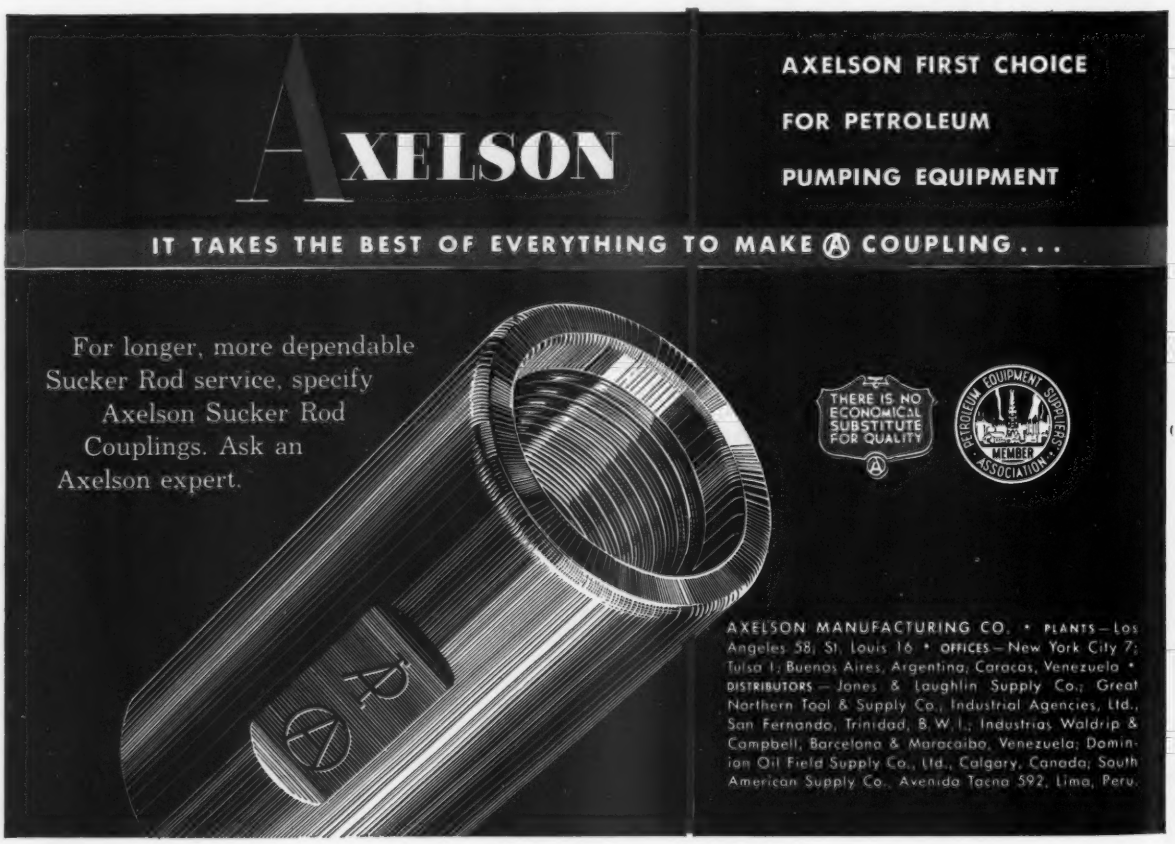
On land north of Burrell in Fresno County, L. M. Lockhart's Burrell No. 1-21 on Sec. 21-16s-18e is prospect drilling ahead at 2200 ft. Pacific Western early in 1950 drilled its Burrell No. 38-1 on ground about one-half mile southeast to an unproductive depth of 7230 ft. Lockhart has a well producing in Sec. 27. It is called Sample No. 1-27 and when completed in April, 1950, showed an initial flow of 150 barrels of 34.4 gravity oil daily, cutting 40 per cent. The operator's Souza No. 1-36 on Sec. 36-14s-12e at Panoche Creek is drilling and coring ahead at 10,200 ft. Near Cantua Creek, Humble Oil's SPC No. 2-1 on Sec. 25-17s-15e continues to dig deeper at 9715 ft. The drill is about to begin in Standard Oil's Caribou No. 38 on Sec. 32-21s-16e in Jacalitos Hills. On wildcat land near Raisin City, Seaboard is on a hunt for new oil in Sec. 34-15s-18e. The venture, Seaboard-S.A. & F.L. was last reported drilling at 7030 ft.

Poso Creek Leases Taken

California Lease Company of Los Angeles reported the consummation of three interesting deals in the McVan sector of the Poso Creek area. The company announced that L. R. Wilhite has taken 40 acres in Sec. 14-27s-27e, Miller & York had obtained an operating agreement on production in the same section, and Weber, Hunter and McKinnon have acquired 40 acres adjoining. On Sec. 20-27s-27e, Canon Drilling Company's Sally No. 1 test continues to drill ahead below 2000 ft.

Race Track Try Starting

One mile west of Race Track Hill production, Trico Oil & Gas Company has started its Haddad No. 1 on Sec. 4-30s-29e. The project will try for Vedder production. East of Race Track Hill, R. D. Coffee is rigging to pump his Crofton No. 1 in Sec. 36-29s-29e from 519 ft.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"What are you doing to save our oil resources?"

People are concerned these days *about America's supply of crude oil. They say, "If petroleum resources are beginning to run out, we ought to be careful to make them go as far as possible. What are you big companies doing to save our oil resources?"*

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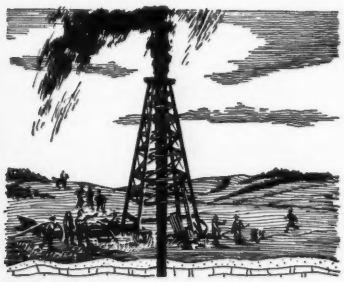
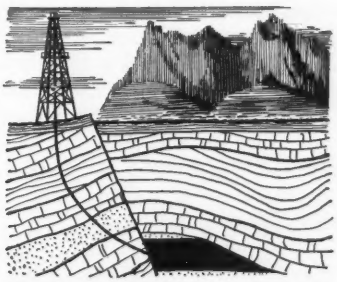
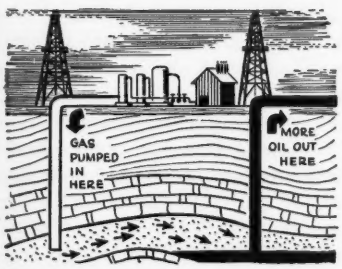


Remember the gusher? Years ago new wells were allowed to erupt. But oil men found ways to stop this waste. And now they extract three new fuels from the gas mixture.



We also prevent waste by tapping oil pools which used to be out of reach. Through research into drilling techniques we make holes *curve*, to reach under mountains, for example.



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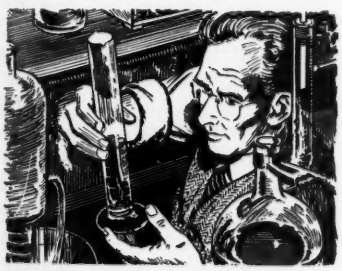

And research in refining helps. In 1920, Western refineries were getting less than 7 gallons of gasoline from each barrel of crude. They now get 20 gallons of far better gas.

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Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

The quickening tempo of wildcat drilling in the vast Williston Basin of North Dakota and northeastern Montana continued to dominate the oil picture in the Rocky Mountain region. Plans of several major companies to evaluate large acreage holdings in this area should turn up significant clues to the potential contribution of this newest oil province to the nation's economy in the months ahead.

H. L. Hunt, the fabulous independent operator from Texas who acquired large holdings in northern North Dakota as early as 1948, revealed plans to drill three wildcats immediately in the east central portion of the big basin, exploring seismic highs. Locations are being staked north of Bismark, in Bottineau, McHenry and Sheridan counties.

Meanwhile, interest of operators is centered on three important ventures on the west side of the basin near Sidney, Mont. Shell was reported to have cored considerable saturation in its discovery in the Richey area, which flowed oil on earlier tests of the Mississippian. The well is nearing 8,000 ft. A second Shell wildcat, in the nearby Pine Unit, had drilled below 7600 ft. without finding any shows. And between the two Shell ventures, The Texas Co. was drilling below 7300 at the interesting No. 1 Northern Pacific wildcat. The recent Shell discovery led Carter Oil Co. to start deepening its No. 1 West Poplar Unit well in Roosevelt County, suspended at 5051 ft. last year. It will go down to the Devonian around 9,000 ft. Just to the east of the Carter well, C. H. Murphy has started another wildcat.

The Williston Basin extends southward into South Dakota, where efforts to find oil have so far been unavailing. Shell recovered water in the Dakota at a venture northwest of Bison in Perkins County and is drilling on down to the basement rocks to check on all horizons.

The Williston Basin play has revived interest in Montana prospects. At a recent state oil and gas lease sale in Helena, Gulf Oil was high bidder with a figure of $44.50 per acre for lands in the northeastern corner of the state. At another sale, Gulf bid as high as $61.50 per acre for lands near the Shell discovery in Dawson County. Other high bidders at the state sale included Carter, Texas Pacific Coal and Oil, Ralph Lowe, Hancock and Jeff Hawks. The highest bids were for lands within a 25-mile radius of the Shell strike.

While the spotlight played longest on the Williston Basin, operators were not neglecting other promising areas in the Julesburg Basin of western Nebraska, northeastern Colorado and eastern Wyoming; the big Uintah of Utah, Wyoming's Big Horn Basin and elsewhere.

Two Ardmore, Okla. independents, Roy Johnson and John Bunn, found good shows in the Dakota sand at a wildcat on the south side of the Uintah Basin. The shows were sufficient to warrant running casing at the No. 2 Fee, about 15 miles southeast of Red Wash field. At total depth of 8423, the venture had reached the Weber (Tensleep) sand. The same two independents had teamed with Stanolind Oil and Gas for a development program for natural gas in the Hells Hole area in nearby Rio Blanco County, Colorado, where the discovery well recently gauged over 11 million cubic feet daily from the Mesa Verde at the shallow depth of 2495 ft. Mountain Fuel Supply of Rock Springs will provide the pipeline outlet for the new field.

Elsewhere in Utah, Stanolind, Utah Oil Refining and Mid-Continent Petroleum joined forces for an 8,000 ft. wildcat in the area southeast of the Gusher unit. It will test the basal Green River fractured shale formation southeast of the California Co.'s two wells at Gusher (one of which was a small producer and the other a failure).

California Co. is completing two new producers in the Red Wash field and drilling another two wells.

Drilling continues without letup in the Julesburg Basin, where 10 new ventures were launched late in August. One of these, a wildcat staked by Slick-Moorman of San Antonio, will test an area south of previous efforts in Washington County. Amerada Petroleum is contributing to the cost.

In Wyoming, Continental confirmed a seventh separate pool in the general Sussex-Meadow Creek area north of old Salt Creek. The firm completed its West Sussex discovery for 450 bbls. oil per day from the Shannon sand after plugging back from the deeper Lakota. Five different pay zones have been established in the general area to date.

One of the most active wildcatters in the Rocky Mountain region, Continental made locations for two new wildcats in Wyoming recently. One will be a Pennsylvanian test in the North Fort Laramie area, southwest of the company's deep test near South Harrison, Nebr. The firm is preparing to drill a 3200 ft. test to granite in its Sage Creek block, Fremont County, Wyoming, acquired from the Indian reservation earlier this year.

Wilshire Oil of Los Angeles scored a deep disappointment at the Meeteetse wildcat in Park County, Wyo., which appeared headed for abandonment at 11,454 ft. Encour-

aging shows were found in the Embar lime, but failed to yield to acid treatment, and the Tensleep sand, at 11,306, proved hard and tight with only slight staining at the top.

In the Manderson area of the Big Horn Basin, General Petroleum reached the Madison lime at 7857 ft. after failing to find any shows in the Amsden or Tensleep sands. Earlier the well flowed oil, with high hydrogen sulfide gas ratio, from the Embar lime.

Among the recent dry holes were Stanolind's Coon Creek venture in Big Horn County; Signal's Sage Creek test in the same county, Stanolind's test at North Big Muddy in Converse County, Westates test at Owl Creek, Hot Springs County, Skelly's venture at North Emigrant Gap in Natrona County, and Mountain Fuel's Pretty Water unit in Sweetwater County.

In New Mexico, it was reported that the development drilling program in the South Largo area of Rio Arriba County will be continued despite the recent shooting of Thomas Doswell of Dallas. The Doswell-Pettigrew interests are drilling at the No. 2 State to test the Pictured Cliffs formation, a gas producing horizon.

Continental's South Dulce wildcat in Rio Arriba County was reported below 8,000 ft. with a test of the Tocito sand making a slight blow of gas.

Still in the drilling picture is Idaho, with Phillips spudding a test at Horse Shoe Creek in Teton County. A deep test is planned on a surface anticline north of the Big Elk area (where Sun drilled a dry hole last year).

Personal news of the region reflected the activities of many new operators who have found the Rockies an attractive hunting ground in the last few years.

Saltmount Oil Co. of Fort Worth moved Edward Godwin-Austin to Denver as assistant secretary and head of the land department. He was district landman for the California Co. until recently.

Ralph H. Hamblin left his post of district geologist for Cities Service at Olney, Ill., to open an office as a consulting geologist in Denver.

The George and Wrather Drilling Co. of Evansville opened an office in Denver.

Seaboard Oil Corp. made Robert M. Bischoff general superintendent of the Rocky Mountain district, following the recent resignation of Jack Fanshawe in Casper to enter the consultation field. Bischoff was recalled from Edmonton for the post.

James Donoghue, president of the recently dissolved MacKinnie Oil and Drilling Co. (whose stock was sold to Continental for a reported $13,000,000), has opened new offices in Denver and will continue active as an independent operator.

K. W. Brill, regional exploration chief for Continental, opened offices for the firm in Salt Lake City to handle the growing volume of land and geological work in eastern Utah.

James H. Brickell is the new landman for California Co.'s Colorado-Utah-Arizona district, while C. C. Denny is development geologist for the company's western division, with headquarters in Denver.

Halliburton Oil Well Cementing has opened a new service in Williston, N. D., to handle the growing volume of work in the Williston Basin. E. B. (Bruce) Brossard is in charge of the area embracing North Dakota and northeastern Montana.

Sohio sent Jack E. Lewis from Evansville, Ind., to Scottsbluff as district landman.

WESTERN CANADA

The entire question of exporting gas from Alberta to the west coast will be reviewed again by the Conservation Board sometime in September. Recently the board approved export of gas across the line to neighboring Montana, but this project must await approval of the Federal Power Commission in the States.

Development of natural gas reserves is continuing steadily in the province. Since the first of the year, 31 new natural gas discoveries have been completed in Alberta, according to the Department of Mines and Minerals at Edmonton. This has added an estimated daily potential of 250 million cubic feet to the natural gas reserves of the province. It is only a question of time, it is believed, until reserves will be considered ample to warrant construction of a natural gas line from Alberta to British Columbia and the American west coast.

Oil and gas pipelines from the province to Vancouver were mentioned as a possibility recently by Premier E. C. Manning. He opined that the province is producing sufficient petroleum to supply a share to British Columbia and added that there is greater interest in the export of natural gas than petroleum at this time.

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THIS LAUGH

OFF!!

"I'm not so much for bathrobes," said the man from the hills of Tennessee. "My son, John, sent me one for Christmas and I tried bathing in it once. If it wasn't for the style of the thing, I could get along a lot better without it."

"What kind of oil do you use in your car, Bill?"

"Oh, I usually start by telling them how lonely I am."

A father was sternly reprimanding his 8-year-old son. "Why did you kick your little sister in the stomach?"

"Couldn't help it," the boy said frankly, "She turned around too quick."

On a sight-seeing bus going out Jefferson Avenue in Detroit, the driver was calling out places of interest: "On the right," he announced, "we have the Dodge home."

A young lady asked: "John Dodge?"

"No, Horace Dodge."

Continuing out Jefferson: "On the right we have the Ford home."

"Henry Ford?" the girl asked quickly.

"No, Edsel Ford."

Still further out Jefferson. "On the left we have Christ Church." Hearing no response, a fellow passenger tapped the young lady on the shoulder and said, "Go ahead, lady, you can't be wrong all the time."

Out kangaroo hunting in Australia, the American army colonel crouched precariously in a "jeep," while the obedient southern driver bounced the vehicle over the rough plains.

"Drive faster!" barked the colonel. "The kangaroo's outrunning us."

"It ain't no use, Colonel," shouted the southern boy. "We's doin' 67 miles now and that critter ain't even put his front feet down yet."

Small son: "I'm not afraid of going to the hospital, mother. I'll be brave and take the medicine, and do everything they ask me to—except I'm not going to let them palm off a baby on me, like you did. What I want is a pup."

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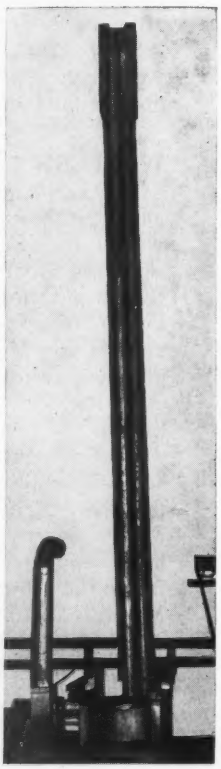

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